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Chicken welfare — Code of practice

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Rwanda Standards Board

P.O Box 7099 Kigali-Rwanda

KK 15 Rd, 49

Tel. +250 788303492

Toll Free: 3250

E-mail: info@rsb.gov.rw

Website: www.rsb.gov.rw

ePortal: www.portal.rsb.gov.rw

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Foreword

Rwanda Standards are prepared by Technical Committees and approved by Rwanda Standards Board (RSB) Board of Directors in accordance with the procedures of RSB, in compliance with Annex 3 of the WTO/TBT agreement on the preparation, adoption and application of standards.

The main task of technical committees is to prepare national standards. Final Draft Rwanda Standards adopted by Technical committees are ratified by members of RSB Board of Directors for publication and gazettment as Rwanda Standards.

DRS 611 was prepared by Technical Committee RSB/TC 5, *Meat, poultry, game, eggs, and their products*.

In the preparation of this standard, reference was made to the following document:

Australian Animal Welfare Standards and Guidelines for Poultry, 2022.

The assistance derived from the above source is hereby acknowledged with thanks.

Committee membership

The following organizations were represented on the Technical Committee on *Meat, poultry, game, eggs, and their products* (RSB/TC 5) in the preparation of this standard.

MINIMEX Ltd,

RP KITABI

Rugali meat processing (RMP) Ltd

National Agricultural Export Development Board (NAEB)

Res Populi Ltd

Rwanda Inspectorate, Competition and Consumer Protection Authority (RICA)

TREBUCO

National Industrial Research and Development Agency (NIRDA)

Norbert Business Group (NBG)

Lenz family Ltd

Rwanda Standards Board (RSB) – Secretariat

Introduction

The poultry industry is a significant contributor to Rwanda's agricultural sector, providing a source of income and employment. Chicken production, in particular, is crucial in fulfilling the local demand for meat and eggs. Today, alongside the sector's growth, there is an increasing focus on both the quality of meat and eggs and optimizing production. This Code of Practice for chicken welfare aims to establish guidelines promoting responsible and sustainable poultry production, reflecting Rwanda's commitment to improving animal welfare and protecting public interests.

The primary objective is to promote the well-being of chickens throughout their lives, from hatching to humane killing. Adhering to these standard enhances flock health and productivity while addressing consumer expectations for ethically produced poultry products. The Code encompasses housing, feeding, biosecurity, handling, and humane slaughter, offering practical guidance across various production systems.

Adherence to this Code demonstrates Rwanda's commitment to safe and ethical poultry production, crucial for facilitating trade and overcoming potential barriers related to animal welfare concerns. It serves as a valuable resource for farmers, managers, stockpersons, and regulatory bodies, providing a clear framework for responsible chicken management.

This Code of Practice provides detailed guidance on key aspects of chicken production, including housing requirements, feeding strategies, biosecurity protocols, handling techniques, and humane slaughter practices. All practices outlined should comply with relevant national laws and regulations.

Chicken Welfare — Code of Practice

1 Scope

This draft Rwanda standard provides guidelines to ensure the welfare of chickens raised for meat and egg production. It covers all aspects of chicken management from hatching through to humane slaughter, including housing, feeding and watering, health management, environmental conditions, handling and husbandry practices, and the design and maintenance of facilities and equipment.

This standard applies to all production systems, including indoor, outdoor, and controlled environment housing systems, and is intended for use by farmers, poultry managers, stockpersons, veterinarians, and regulatory authorities.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

3.1

chicken welfare

state of a chicken and how well it is coping with the conditions in which it lives.

3.2

chick

poultry under 72 hours old, commonly known as day-old chick and poult.

3.3

cock

sexually mature male bird.

3.4

beak trimming

the removal of part of the beak of poultry

3.5

cull

identification and removal of non-productive birds from the flock.

3.6

bleeding out

loss of blood caused by cutting the major blood vessels, usually in the neck or at the base of the heart via the thoracic inlet.

3.7

facilities

any yard, runway, ramp, floors, building, enclosure or fittings used for the purpose of housing or handling poultry, including portable facilities and equipment.

3.8

flock

number of birds of the same origin (genotype), age and managed in the same way.

3.9

brooding

provision of warmth and/or food from a parent or external source for eggs and newly hatched chicks.

3.10

laying chicken

bird (Gallus gallus) reared, kept, and managed for egg production, but do not include a bird being reared and managed for purposes of breeding a laying chicken.

3.11

meat chicken

broiler

bird (Gallus gallus) being reared, kept, and managed for meat production purposes and do not include a bird being reared and managed for the purpose of breeding meat chicken.

3.12

cannibalism

practice by some birds of pecking and eating other members of the same flock.

3.13

induced moulting

process of causing a flock to cease and resume egg production, usually through feed restriction. Shedding and renewing feathers occurs simultaneously.

3.14

litter

mixture of the source material placed on the floor of a shed or cage, and the excreta, feathers and other detritus from the chickens plus wasted feed and water.

3.15

nest area

provides poultry with adequate space, separation from cohorts and the opportunity for laying in a darkened, secluded area.

3.16

non-cage system

housing system in which birds are not confined in a cage and that may include access to an outdoor area.

3.17

substrate

loose or friable material suitable for pecking, foraging and scratching – for example, feed pellets or litter materials such as wood shavings, rice hulls or chopped straw. Also includes materials found on a range, such as grass.

3.18

vent

the common external opening from the cloaca for the digestive system, urinary system and reproductive system.

3.19

veranda

enclosed roofed area attached to a building, e.g., shed, level with the ground floor, designed to give shade or shelter.

3.20

person in charge

where responsibility is shared, this may extend along a hierarchy of management to include all levels of management and ownership as appropriate. 'The person in charge' usually relates to a single, specific person.

4 Responsibilities

4.1 Elements of responsibility for chicken management should include:

a) obtaining knowledge of relevant chicken welfare laws;

b) understanding chicken behaviour;

c) planning and undertaking actions for the enterprise to meet the welfare standards and address contingencies that may arise;

d) assessing the quantity, quality and continuity of feed and water supply;

e) handling to minimise stress, and using facilities and other equipment appropriately;

f) undertaking hygienic practices for management procedures in a manner that minimises the risks to chicken welfare;

g) understanding and following vaccination, chemical and medication treatment instructions for chickens;

h) identifying distressed, weak, injured or diseased chicken, and taking appropriate action, including seeking veterinary treatment where required;

i) maintaining appropriate records;

j) knowledge of local patterns of disease and biosecurity practices to prevent disease; and

k) Slaughtering chickens by acceptable methods or having access to the assistance of someone capable and equipped to slaughter them appropriately.

4.2 Owners, managers and stockpersons should have an appropriate staff induction program, periodically review existing practices, and be aware of new developments and training relevant to the welfare of chickens.

4.3 Operational procedures should be documented and implemented.

4.4 Records of staff training and/or competence should be documented, maintained and retained.

4.5 A person in charge should be trained in chicken husbandry and management.

5 Feed and water

5.1 Feed

5.1.1 Feed supply for chicken should minimise harmful metabolic and nutritional conditions and be based on:

a) age, body weight and/or fat/body condition score;

b) extra demands associated with growth and exercise; and

c) prevailing and predicted weather conditions

5.1.2 The interval of time from hatching to the first feed and drink should be as short as practically possible.

5.1.3 Feed particle size should be appropriate for the age and size of the bird.

5.1.4 Chicken access to contaminated and spoilt feed, poisonous plants and harmful substances should be avoided or managed.

5.1.5 Feeders should be cleaned and maintained regularly and kept indoors away from adverse weather, vermin, wild birds and other livestock.

5.1.6 Feed should be assessed for suitability and safety.

5.1.7 Major changes in diet should be introduced over an appropriate length of time and be closely monitored.

5.1.8 Flock body weight and egg production (where appropriate) should be monitored regularly.

5.1.9 Feeding and watering facilities should be appropriately spaced throughout the housing area. Their design, position and height should allow sufficient space for birds to access feed and water with minimal effort and using normal posture.

5.2 Water

5.2.1 When assessing water requirements for the construction of watering facilities, the following should be considered:

a) daily requirements and total annual requirements;

b) flow rates needed for peak, short-term demand;

c) construction to prevent temperature build-up; and

d) quality and biosecurity risk.

5.2.2 Water within drinker lines should be regularly flushed and monitored.

5.2.3 Uncontrolled water sources (for example, bores, dams, open stock troughs creeks) used as drinking water sources should be treated as appropriate to improve quality and minimise biosecurity risks.

5.2.4 Medicated water systems should be closely monitored to ensure chickens are correctly dosed.

5.2.5 Water should be available continuously, except where water is withheld for no longer than 2 hours before water vaccination, medication, or before or during catching and during litter amendment activities.

6 Risk management of extreme weather, natural disasters, disease, injury and predation

6.1 Contingency planning

6.1.1 Written contingency plans should be in place to address events which could result in a potentially significant welfare impact on chickens.

6.1.2 A contingency plan should include emergency contact details and consider adverse events such as electrical power failures, mechanical failures affecting feed, water or ventilation, extreme weather, fires, floods, insufficient feed or water supplies, disease outbreaks, and other enterprise-specific issues.

6.1.3 To facilitate evacuation in an emergency, there should be adequate exits for buildings and yards.

6.2 Weather and natural disasters

6.2.1 During extremely hot weather, chicken handling should be minimised.

6.2.2 Chicken should be managed to minimise heat stress (signs of which may include panting or wings outstretched) or cold stress (huddling).

6.2.3 Automated sprinklers, misting systems, evaporative cooling systems or other effective heat dissipation systems should be installed in all indoor housing systems.

6.2.4 Innovative temperature and humidity regulating systems, such as Heating Ventilation and Air Conditioning (HVAC), may be evaluated and implemented where appropriate to optimize chicken welfare.

6.3 Inspections

6.3.1 Sufficient inspections should be undertaken during which temperature levels, availability of feed, feeding systems, water and all parts of the ventilation system are checked, and where problems are encountered, appropriate remedial action should be taken to protect the welfare of chickens.

6.3.2 Inspections should be documented.

6.3.3 Inspection should be done in such a way that chickens are not unnecessarily disturbed, for example, animal handlers should move quietly and slowly through the flock.

6.3.4 All alarm systems, firefighting equipment and emergency power supplies should be tested regularly, and test results documented.

6.3.5 Chicken distribution and behaviour should be monitored during daily inspections and corrective action should be taken to adjust light, temperature, ventilation, bedding condition and feed and water supply as required.

6.4 Disease and injury

6.4.1 Biosecurity programmes should be implemented. These programmes should address the control of the major routes for disease and pathogen transmission:

a) direct transmission from other poultry, domesticated and wild animals, and humans;

b) fomites (for example, equipment, facilities, and vehicles);

c) vectors (for example, rodents and arthropods such as insects);

d) aerosols;

e) water supply; and

f) feed.

6.4.2 Appropriate veterinary advice on chicken disease diagnosis, prevention or treatment should be sought as required.

6.4.3 In all systems, mortalities, including culls, should be monitored and recorded, and a cause determined if possible.

6.4.4 Chicken should be vaccinated following veterinary advice.

6.4.5 Internal and external parasites should be monitored and managed.

6.4.6 Daily monitoring of chicken should occur to identify early signs of injurious pecking, which may include:

a) pecking directed at the body feathers of other birds;

b) vent pecking;

c) feather eating;

d) feather damage or bare areas, particularly around the back and tail;

e) signs of persistent aggression, such as pecking directed at the head; and

f) chasing other birds.

6.4.7 Injurious pecking and cannibalism risk should be managed. Prevention and management methods include:

g) infrared beak trim at day old;

h) reducing light intensity;

i) reducing temperature;

j) providing foraging materials;

k) modification of nutrition and feeding practices;

l) reducing stocking density;

m) selecting the appropriate genetic stock; and

n) isolation of affected birds.

6.4.8 Appropriate action for sick, diseased or injured chicken should incorporate one or more actions, including:

a) seeking veterinary advice;

b) treatment and isolation of sick birds; and

c) humane slaughter.

6.5 Lameness

6.5.1 Chicken should be monitored for the incidence of lameness, and the cause of lameness investigated and addressed.

6.5.2 Monitoring chicken for lameness incidence is essential; causes should be investigated and addressed.

7 Facilities and equipment

7.1 General

7.1.1 Facility construction or modification should consider the following:

a) chicken behaviour;

b) topography (location and drainage);

c) flood and fire risk;

d) climate;

e) purpose;

f) space allowance;

g) feed and water requirements;

h) shade or shelter;

i) surface materials; and

j) cleaning and waste disposal.

7.1.2 Facilities should be free of protrusions and obstacles that are likely to cause injury.

7.1.3 Facilities should be subject to a pest (for example, wild birds and rodents) control plan.

7.1.4 A maintenance programme should be in place for all equipment if the failure of which can jeopardise chicken welfare.

7.1.5 Chicken should be given sufficient space to perform dust-bathing behaviours.

7.1.6 Provision of environmental enrichment should be considered, taking into account potential risks and benefits to chicken welfare. Such practices may include the provision of:

a) bales of hay or straw;

b) perches and platforms;

c) objects for pecking; and

d) dust-bathing materials.

7.2 Housed chicken

7.2.1 Exposure of chickens to stimuli that might cause fear and distress should be minimised where possible. Ventilation fans, feeding machinery or other indoor or outdoor equipment should be constructed, placed, operated and maintained in such a way that they cause the least possible amount of fear and distress.

7.2.2 Chickens should have enough vertical and horizontal space available to stretch to their full height and flap their wings.

7.2.3 When new buildings are planned, existing buildings modified or equipment purchased, advice on aspects that can affect welfare should be sought from suitably qualified and experienced persons.

7.2.4 Where chickens are brooded on a wire, temporary supportive flooring material, such as paper or matting, should be provided during the early brooding period.

7.2.5 Where claw-shortening devices are provided, a person in charge should ensure they are provided in such a way that allows birds to utilise them through to the day of pick-up.

7.3 Perches and platforms

7.3.1 Perches and platforms should be without sharp edges.

7.3.2 Perching areas should be designed to allow chickens to grip without risk of trapping their claws.

7.3.3 If ramps are provided for birds to move between tiers in tiered housing, they should:

a) be made from non-slip material;

b) be located throughout the facility to allow easy access for birds;

c) allow for minimal effort and ease of bird movement between tiers; and

d) be cleaned after each batch.

7.3.4 Where perches are provided, there should be sufficient perches or platforms for all birds to roost.

7.4 Nests

7.4.1 If nest areas are provided, they should be easily accessible and should not be so high above the floor level that chickens may be injured when ascending or descending.

7.4.2 Nest litter, where used, should be kept clean, dry, friable and moisture adsorbent. Nest liners should be kept clean and dry.

7.4.3 The construction and positioning of nest areas should be such that they do not trap heat.

8 Management of outdoor systems

8.1.1 A management plan should be developed to actively manage and maintain the outdoor area to:

e) encourage birds to access all areas;

f) control disease and parasites;

g) avoid injury or mortality;

h) prevent land degradation;

i) provide adequate drainage to prevent muddy conditions;

j) avoid accumulation of water;

k) discourage contact with wild birds and their droppings;

l) minimise the risk of predation; and

m) minimise the risk of fire.

8.2 To minimise the threats from predators, shelter should be provided in the outdoor area.

8.3 Shade and shelter in an outdoor area can be provided by vegetation such as shrubs or trees and structures such as shade cloth, straw bales and shipping pallets on blocks.

8.4 Vegetation should be provided on the range, including mature trees, shrubs and forage such as grasses and ground vegetation.

8.5 Pop holes should have sufficient width and height to allow the chicken to enter and exit while maintaining normal posture without contacting the sides.

8.6 Ramps should be constructed and maintained to minimise slippage or injury and to allow chickens to move freely.

8.7 At least 8m^2 of natural and/or artificial overhead shade and shelter per 1,000 birds should be provided and appropriately distributed across the outdoor area.

8.8 When birds are observed not to be using shade or shelter structures, action should be taken to encourage use by modifying facilities if required.

8.9 Feed and open drinking water should not be provided in the outdoor area to discourage wild birds.

8.10 Outdoor area enhancement should be provided to allow chickens to feel safe outdoors and be encouraged to move away from the housing openings.

8.11 At night, chickens should be confined to mitigate predation and biosecurity risks.

8.12 The area around openings to outdoor areas should be kept clean and well-drained.

9 Lighting

9.1 With the exception of nest areas, natural and artificial lighting should be evenly distributed to facilitate the distribution of chickens over the floor area and avoid overcrowding.

9.2 Enterprises, where chicken is housed indoors, should have access to equipment to measure light intensities and keep appropriate records.

9.3 Lighting should be managed to avoid sudden changes in light intensity.

10 Temperature and ventilation

10.1 Temperature

10.1.1 Rapid temperature changes should be avoided where possible.

10.1.2 Temperature and chicken behaviour should be monitored more frequently at high stocking densities and during extreme weather conditions.

10.1.3 If signs of stress (panting and wing extension due to heat or huddling due to cold) are observed, Corrective action should be taken immediately.

10.2 Ventilation

10.2.1 Extra attention should be paid to ventilation at high stocking densities and during extreme weather conditions.

10.2.2 Air quality parameters, such as temperature, humidity and ammonia levels, should be monitored and recorded daily. Chicken should be monitored for eye and nasal irritation that might indicate ammonia, dust or other air-quality problems.

10.2.3 Dust levels should be kept to a minimum by maintaining appropriate ventilation, and humidity levels and appropriate litter management.

10.2.4 Alarm systems in mechanically ventilated sheds should have:

a) back-up power;

b) the ability to detect if the shed temperature is too high or too low and if there is a power failure in any power supply phase;

c) appropriate settings so that alarms are easily heard; and

d) all-hours response availability with the restoration of power or emergency ventilation within 15 minutes.

11 Litter management

11.1 Where litter is re-used at the end of a batch, it should be treated to address pathogen loads and ammonia concentrations and be dry and friable at chicken placement.

11.2 Where appropriate, chickens housed indoors should have access to a littered area, the litter occupying at least one third of the ground surface for birds to forage and dust-bathe. Litter should be at a depth suitable for the species.

12 Handling and husbandry

12.1 Handling and Management

12.1.1 The stocking density should be reviewed regularly and adjusted, considering factors such as breeding company recommendations, species, age, flock size, house or paddock conditions, behavioural needs and the likely occurrence of disease.

12.1.2 Chicken should be managed at a stocking density that takes into account:

a) growth rate;

b) competition for space;

c) access to feeders and water;

d) air temperature and quality;

e) humidity;

f) litter quality;

g) housing system;

h) production system;

i) biosecurity strategy;

j) genetic stock; and

k) market age and weight.

12.1.3 Manual handling of chicken should be kept to a minimum during stocking and depopulation.

12.1.4 A person should not carry birds on one leg.

12.1.5 Chicken should be released by setting them down on their feet or from low heights that enable them to land normally, feet first. Chicken should not be released in a manner that requires flying.

12.1.6 Mechanical catchers should be designed, operated, and maintained to minimise injury, stress and fear to the birds. A contingency plan is advisable in case of mechanical failure.

12.1.7 Chicken that are identified as unfit or injured before or during the catching procedure should be humanely slaughtered immediately by an appropriately trained and competent operator.

12.1.8 A veterinarian should be consulted about the availability of appropriate pain relief products that can be prescribed for use in painful procedures.

12.1.9 Pullets should be reared in similar conditions as the intended production farm.

12.1.10 Where chickens are moved on conveyor belts, the maximum height difference between consecutive conveyor belts should not exceed 40 cm.

12.1.11 Sex ratios in breeding flocks should be monitored and adjusted to minimise aggressive or dominant behaviours.

12.1.12 Cutting of feathers, including the wing feathers, from live birds should only be carried out by a person who has the relevant experience, knowledge and skills in the procedure.

12.1.13 Feathers should be cut no closer than 10 mm to the bloodlines. Feathers without a ripe bloodless clearance above the bloodline should be left on the bird.

12.1.14 Guardian and herding animals used to protect and move flocks should be appropriately trained to not harm the birds.

12.1.15 The use of handling aids such as crooks should be limited to the minimum needed to complete the task and not replace good poultry-handling skills.

12.2 Breeding

12.2.1 General provisions

12.2.1.1 Breeding practices should prioritize the health and welfare of chickens.

12.2.1.2 Selection for traits that compromise welfare (e.g., excessive growth rate leading to lameness or metabolic disorders) should not be permitted.

12.2.2 Genetically modified organisms (GMOs)

12.2.2.1 Breeding from cloned or genetically modified chickens, including genome-edited chickens, should be prohibited, unless specifically authorized under national laws or regulations.

12.2.2.2 If authorization is granted, the following conditions should apply:

a) A comprehensive welfare impact assessment should demonstrate that the genetic modification does not cause harm or compromise welfare.

b) Any modification should be consistent with recognized animal welfare principles

c) Transparency should be maintained through record-keeping and disclosure to relevant authorities.

12.2.3 Future developments

New breeding technologies, such as genome editing, should be assessed against the same welfare criteria before use.

12.3 Beak trimming

12.3.1 New, more humane technologies and methods for performing physical alterations and reducing aggressive behaviours should be adopted as they become available.

12.3.2 Beak trimming, other than infrared, should only be carried out under veterinary advice by trained and skilled personnel using methods which minimise pain.

12.3.3 Strategies to minimise injurious feather pecking and avoid beak trimming should be used including appropriate genetic selection of birds, lighting, feed control and the provision of environmental enrichment and pecking objects.

12.4 Induced moulting

12.4.1 Induced non-fasting moulting should only be considered in exceptional circumstances where there is a supply shortage of eggs.

12.4.2 Induced non-fasting moulting should not result in birds losing 23% or more of their body weight.

12.5 Identification

Identification devices permanently or temporarily attached to chickens should be lightweight and safe for the identified chicken.

12.6 Hatching systems

12.6.1 Hatching trays with live chicks should be moved smoothly. Trays should be tipped to remove chicks in such a way that the birds do not become trapped or smothered.

12.6.2 When in-ovo sexing technology becomes commercially available, it should be used to avoid the culling of hatched male layer chicks.

13 Humane Slaughter

13.1 General

13.1.1 Humane slaughter protocols should be documented.

13.1.2 Acceptable methods for the humane slaughter of chicken include:

a) cervical dislocation or decapitation for chicken less than 5 kgs;

b) injectable euthanasia solution;

c) stunning by blunt trauma followed by decapitation or bleeding out for chicken over 5 kgs;

d) stunning with a bolt or pneumatic device designed for chickens followed by bleeding out;

e) slaughtering with a bolt or pneumatic device designed to stun-kill chicken;

f) electrical stunning followed by an acceptable killing method;

g) modified atmosphere killing (MAK);

h) firearm via a headshot for larger species; and

i) immediate fragmentation or maceration for unhatched eggs and day-old chicks.

13.1.3 Gaseous modified atmosphere killing should only be conducted under veterinary advice.

13.1.4 When cervical dislocation is used, it should result in complete dislocation of the head or brain from the spinal cord causing cardiac and respiratory arrest and leading to death.

13.1.5 When using gaseous modified atmosphere killing, the procedure should ensure the collapse of every chicken within 35 seconds of exposure to the gas. Chicken should remain in the gas for at least a further 5 minutes following collapse.

13.1.6 If using CO_2-based modified atmosphere killing as an on-farm depopulation technique, up to 30% CO_2 should be applied until chickens are unconscious, followed by higher concentrations until death.

13.1.7 As practical alternatives to CO_2-based modified atmosphere killing are developed for on-farm depopulation, such as the use of inert gases or development of units that allow progressive hypobaric hypoxia including low-atmosphere pressure stunning (LAPS), these should be used.

13.1.8 When using gaseous modified atmosphere killing to slaughter chickens, birds should not be placed above the gas level or on top of conscious birds in the container.

13.2 Confirming death in a chicken after humane slaughter

Three or more signs should be observed to determine whether the method used for slaughtering chickens has caused death, including:

a) absence of a corneal 'blink' reflex when the eyeball is touched;

b) maximum dilation of the pupil;

c) absence of rhythmic respiratory movements for at least 5 minutes;

d) in case of cervical dislocation, manual verification of a clear gap of skin between the skull and the neck;

e) absence of a nictitating membrane (third eyelid) reflex; and

f) loss of consciousness and deliberate movement, including eye movement.

13.3 Bleeding out (exsanguination)

Bleeding out should only be done on unconscious chicken by cutting the main blood vessels in the neck using a suitable, sharp blade.

14 Production guidelines for laying and meat chickens

14.1 Laying chickens

14.1.1 General

14.1.1.1 The slope of the floor should not exceed 8 degrees. If mesh flooring is used, the mesh size should be less than 25 mm × 25 mm.

14.1.1.2 If slatted or perforated flooring is used, the size of the dimensions of the gaps or perforations should be no greater than 25 mm.

14.1.2 Lighting

The lighting system should provide a minimum period of 8 hours of continuous artificial and/or natural lighting per day.

14.1.3 Litter

14.1.2.1 For non-cage systems, unless the chicken can access outdoor areas the litter area should provide sufficient space to allow at least one third of the flock to forage and dust-bathe at any one time.

14.1.2.2 When using litter, chicken should be given continuous access to litter as soon as possible but no later than 3 weeks following production site placement allowing for a period in which to train birds to use the nests.

14.1.4 Nest areas

14.1.3.1 If nests are provided, there should be a sufficient number of appropriately sized nests for the strain and the number of hens in each group.

14.1.3.2 Nest areas should be enclosed and provide a suitable floor substrate to encourage nesting behaviour.

14.1.3.3 Nest area flooring should not consist of wire or plastic-coated wire.

14.1.3.4 Nest areas should be kept clean and operational.

14.1.3.5 During nest-area training, nest-area lighting should:

a) only be turned on in the morning;

b) be turned off in the afternoon; and

c) not be used once birds have learnt to lay in the nest.

14.1.3.6 Alternatives to electric wires should be considered. If electric wires are used along walls and corners to prevent floor eggs, these should:

a) only be turned on in the morning during nest-area training;

b) be turned off in the afternoon; and

c) not be used once birds have learnt to lay in the nest.

14.1.3.7 Where a large number of floor eggs are found, efforts should be made to identify if there is a problem with the nest areas and to rectify the problem.

14.1.5 Veranda

14.1.4.1 Birds should be given access to the veranda as soon as possible but no later than 3 weeks following placement allowing for a period in which to train birds to use the nests.

14.1.4.2 The veranda should be designed, constructed and maintained to provide shade, natural light and good airflow.

14.1.4.3 The useable floor area of the veranda should provide sufficient space to allow at least one third of the flock to forage and dust-bathe at any one time.

14.1.4.4 The roof of the veranda should be waterproof.

14.1.4.5 The design, number and position of openings that provide access to the veranda should:

a) be of a minimum height and width and free of objects or protrusions to allow birds to pass through using normal posture;

b) be evenly distributed along the entire length of the shed;

c) give birds a clear view of the veranda from within the shed;

d) avoid birds obstructing the movement of other birds;

e) avoid injury to birds;

f) take into account prevailing weather conditions; and

g) allow for unrestricted entry or egress to the veranda from the shed.

14.1.6 Outdoor area

14.1.5.1 A daily record specifying the date and times of availability of access to the outdoor area should be kept.

14.1.5.2 Birds should be observed to be using shade or shelter structures and action taken to modify facilities if required.

14.1.5.3 Feed and drinking water should not be provided in the outdoor area.

14.1.5.4 The opening that provides access between indoor and outside areas (pop hole) should be at least 35 cm high and 40 cm wide with a combined total width of all openings being 2 m for each 1,000 birds.

14.2 Meat chickens

14.2.1 General

14.2.1.1 Catching of meat chickens should be carried out under dim or blue light.

14.2.1.2 If slatted or perforated plastic flooring is used, the smaller of the dimensions of the gaps or perforations should be no greater than 25 mm.

14.2.1.3 Ongoing health and/or injury data should indicate that the stocking density does not compromise bird welfare.

14.2.1.4 Meat chickens should be inspected at least twice daily.

14.2.1.5 When considering stocking densities for future flocks, records of previous flocks should be reviewed, including post-slaughter data from processing plants of feet, hock, and breast lesions.

14.2.2 Birds with access to outdoor areas

14.2.2.1 Feed and drinking water should not be provided in the outdoor area.

14.2.2.2 The opening that provides access between indoor and outside areas ('pop hole') should be at least 35 cm high and 40 cm wide with a combined total width of all openings being 2 m for each 1,000 birds.

14.2.2.3 A daily record specifying the dates and times of availability of access to the outdoor area should be kept.

14.2.2.4 The design, number and positioning of openings that provide access to the outdoor area should:

a) be of a minimum height and width and free of objects or protrusions to allow birds to pass through using normal posture;

b) be evenly distributed along the entire length of the shed;

c) give birds a clear view of the outdoor area from within the shed;

d) avoid birds obstructing the movement of other birds;

e) avoid injury to birds;

f) take into account prevailing weather conditions; and

g) should allow for unrestricted entry or egress to the outdoor area from the shed.

14.2.2.5 Any ramps for chickens to access the outdoor area should:

a) be of a minimal slope to allow birds to walk up and down the ramp with a normal gait; and

b) provide a non-slip surface.

14.2.3 Controlled environment housing

14.2.3.1 Daily water intake should be monitored and recorded.

14.2.3.2 Alarms should be installed and maintained to alert personnel when housing environmental conditions are out of acceptable ranges.

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Price based on nnn pages