



## National Standard

## Chicken Facility Standard Barn Sheds New Building Projects (June 2024)

The Facility Standards outlined below are the minimum requirements for all barn chicken sheds constructed after June 2024.

The Facility Standards may need to be updated to comply with certification and or regulatory requirements as needed

Farm:



All calculations are based on placement numbers of 21.5 birds / square metre

NUMBER	ITEM
A	Farm requirements, structure and layout
A 1	Shed size and farm size must be approved to suit company requirements
A 2	Farms must be designed, built and maintained in accordance with the latest version of the National Farm Biosecurity Manual for Chicken Growers, the Model Code of Practice for the Welfare of Animals (Domestic Poultry) or equivalent, and all governing legislation and industry guidelines, including the RSPCA Standards for indoor systems
A 3	The distance between sheds and equipment (excluding silos) must be a minimum of 10m
A 4	Sheds must be solid-sided and tunnel ventilated
A 5	The wall and shed structure must not protrude inside dwarf walls
A 6	Roof insulation value must be > 2 R and maintained in optimal condition
A 7	The side, end wall and door insulation must be maintained in optimal condition with insulation value > 1 R
A 8	Shed floors must be concrete or approved equivalent and level from front to back A side camber of approximately 50 mm is recommended with suitable drainage points Helix fibres must not be used inside the shed or to construct any farm roadways or pick up pads
A 9	Concrete dwarf walls must be a minimum of 120 mm wide They must also be a minimum of 300 mm and a maximum of 500 mm high
A 10	Sheds must be air tight to achieve a minimum static pressure reading of 30 Pascal at 20,000 cfm extraction with inlets closed
A 11	All internal surfaces, including walls and ceilings, must be smooth to enable efficient airflow
A 12	All sheds, structures and equipment must be wild bird and animal proof
A 13	End access doors at the pick up or cool cell end of the shed must be a minimum of 4.0 m wide and 3.2 m high. The end doors at the fan end of the shed must be a minimum of 3.6m wide and 3.2m high. Roller doors must not be used. Concrete aprons must be a minimum of 6 m wide and 6 m long at the end of each shed

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A 14	Roads must be well constructed and maintained to ensure suitable access for heavy vehicles in all weather conditions
A 15	Drainage between sheds must be suitable to prevent accumulation or stagnation of water
	All farms must have bedding material storage facilities located outside the production area
A 16	The size of these facilities must be approved, well-sealed, and rodent and wild-bird proof

NUMBER	ITEM
<b>B</b>	<b>Evaporative Cooling System</b>
	Tunnel inlet area must be sufficient to achieve the minimum air speed requirement at the specified static pressure
B 1	Tunnel inlet doors must be solid panel and insulated
B 2	Cool pads must be positioned at the pickup end of the shed and built evenly on both sides
B 3	Sheds must have well-constructed cool cell annexes
B 4	Cool cell pad thickness must be a minimum of 15 cm
B 5	The water flow rate of cool cell pumps must be a minimum of 9.4 litres per linear metre of pad per minute
B 6	A ventilation controller must be fully automatic and include pressure activated mini-vents
B 7	The ventilation controller must allow for the transition between minimum and tunnel ventilation to provide the simultaneous use of mini-vent and cell pad opening
B 8	Sheds must have the ability to manually operate the shed via control bypass
B 9	All non-duty fans must have a suitable method of sealing against air leakage
	Tunnel ventilation fans must provide a minimum of 3.5 m/s air speed and achieve at least one complete air exchange per minute
B 10	Tunnel ventilation air speed to be calculated at 25 Pascal (0.1"/wc)
B 11	Air speed baffles must not be used to achieve air speed
	A minimum of 2 migration fences are required per shed
B 12	These fences must be well designed to prevent bird migration but also not result in bird entrapment

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NUMBER	ITEM
C	Minimum Ventilation
C 1	Mini vents must be installed to manufacturer's recommendations for air exchange
C 2	Mini vents must have a mechanical means of securing the vent in position (individual latches or otherwise) and light restriction hoods
C 3	Incoming air flow through mini vents must not be obstructed by shed equipment
C 4	The shed design must allow for uniform extraction of air from both ends of the shed when operating in minimum ventilation mode

NUMBER	ITEM
D	Brooding
D 1	Heaters must be distributed evenly throughout the shed to achieve the required target temperatures
D 2	There must be a minimum of one backup heater in good working condition available per farm
D 3	Where LPG is used, gas storage capacity must be a minimum of 4 days
D 4	Brood areas must have well-constructed and maintained brood curtains or the shed must be capable of maintaining optimal brooding temperatures in all areas and at all times of the day to enable full-shed brooding
D 5	If circulation fans are installed, they must be positioned in the apex of the roof to deliver 2000-5000 cfm every 21 metres
D 6	Winchable solid barriers must be installed to enable the efficient placement of day old chicks. Barriers must ensure that chicks are prevented from accessing the forklift operation zone during placement

NUMBER	ITEM
E	Feeding Equipment
E 1	Feed pans must be installed to meet the manufacturer's recommendations, or be a minimum of 0.5 cm of circular feed space per bird
E 2	Feed lines must be evenly distributed across the shed to ensure that chickens are not required to walk more than 2.5m to access a feeder
E 3	Feeders must be able to be set to flood for brooding and be capable of being swung when required post-brooding
E 4	Feeding system must have the ability to time clock feeding
E 5	Winching system (independent of drinkers) must be capable of raising all middle feeders to Minimum of 2.4 m above the floor. The two outside feed lines must be capable of being raised to at least 2.1 m above the floor level

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E 6	Feed storage – each shed must have well maintained, clearly labelled and numbered silos
E 7	There must be a minimum of three silos for every two sheds with a total capacity of 1 tonne per every 1000 birds
E 8	Silos must meet safety standards
E9	Feed silos must have a breather system and a blower tube installed so as to achieve a gradual height increase to an arch into the silo top
E10	A feed spill kit must be available at each batch of silos – each kit must be comprised of a shovel, broom and a 140L wheelie bin

NUMBER	ITEM
<b>F</b>	<b>Water</b>
F 1	The water supply system, bore or dam flow rate must be sufficient to maintain maximum water use for cooling and drinking systems
F 2	The nipple drinking system must be able to deliver 20-80 ml/min flow rate and must be installed in accordance with the manufacturer's recommendations
F 3	Nipple drinkers must be installed to allow a maximum of 12 birds per nipple or 24 birds per nipple during the brooding period
F 4	Drinker lines must be evenly spaced with a maximum of 3.5 metres between drinker lines
F 5	The winching system must be capable of raising middle drinkers to a height of 2.4 m above the floor. The outer lines must be raised to a minimum of 2.1 m above the floor level
F 6	All farms, including those supplied by town water, must be equipped to supply potable quality water at all times and have a water sanitation system installed to meet the National Biosecurity Manual requirements
F 7	Farms supplied by bore or surface water must have an automatic water sanitation dosage and monitoring system
F 8	Farms supplied by surface water must have a double water disinfection system installed Both systems must operate simultaneously but also have the capability of operating independently should one system fail
F 9	Water storage capacity –72 hour reserve supply for both drinking water (approx. 1 L/bird) and operation of cooling systems
F 10	Medication tanks with a capacity of 1000 L – 2000 L must be installed to supply each shed. Alternatively, one tank per each two sheds can be installed but this tank must be capable of being isolated to be able to vaccinate or medicate a single shed at a time, if required
F 11	All sheds should have hoses installed from the end of the drinker line to the shed exterior to enable regular flushing of drinker lines
F 12	All sheds must be fitted with water metres and water flow alarms

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F 13	Taps and hoses must be installed at the pickup end of the sheds to allow for hosing of birds in modules during hot weather periods
	The hoses must have enough pressure to reach the top of the modules
	Installing hoses at the boundary fence may prevent the hoses being damaged by road traffic

NUMBER	ITEM
G	Lighting
G 1	Shed light source must be dimmable LED
G 2	Shed lighting systems must allow for lighting programs to be set and automatically controlled
G 3	Dawn-to-dusk lighting systems must be installed, which enable light intensity to be gradually increased or decreased over a 15 minute period
	Lighting system must provide a uniform light distribution at floor level and be capable of achieving:
G 4	<ul style="list-style-type: none"> <li>An average of 40 lux light intensity during brooding with no area of the floor less than 20 lux</li> <li>An average of 20 lux light intensity for grow-out with no area of the floor less than 10 lux</li> </ul>
G 5	External lighting must be provided over the end doors, wash areas and amenities

NUMBER	ITEM
H	Catching
H 1	Shed entrances at the pickup doors must be smooth to enable ease of vehicle and equipment movement
	Farm must have designated wash down area at the entrance to the farm
	This area must have a concrete pad (min 5 m x 10 m) and suitable drainage
	A hose with adjustable nozzle and sufficient pressure with appropriate chemicals to enable equipment washing must be provided
H 2	Suitable lighting of this area must be also provided
	Pickup areas must provide for all weather conditions
H 3	They must be at least 25 m depth x 30 m width with a maximum slope of < 1/24
H 4	The farm must have an adequate number of light-proof fan covers to facilitate daylight catching of each shed on pick up at the same time
H 5	There must be the ability to position and fit blackout tunnels for catching purposes to shed entrances if these are required

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NUMBER	ITEM
I	Biosecurity
I 1	A risk assessment must be completed detailing the location of neighbouring properties, nearby farms and the location of surface water reservoirs on the farm property or in close proximity to the property
I 2	Approved quarantine signage must be displayed at the entrance to the production area and on the farm perimeter fencing
I 3	An automatic wheel wash station must be available and positioned at the entrance to production area
I 4	All farms must install and operate surveillance devices at farm access points (entry and exit) Such devices will be cameras/CCTV and other intruder sensing technologies, such as motion detectors that activate alarms Signage must also be installed that alerts people to the fact that these types of devices are in operation
I 5	Farm must have stock proof perimeter fencing of the production area This production area fencing must be no less than 10 m from the shed perimeter
I 6	Farm must have lockable front gates and sheds
I 7	There must be a signed designated visitors' parking area available outside the production area
I 8	All farms must have a fixed weather-proof cabinet in an easily accessible area, outside the production area, for storing the visitor's book, service, feed and pick up documentation
I 9	Hand sanitiser stations (out of direct sunlight), well maintained covered footbaths and boot scrapers must be available at the entrance to the production area and each shed entrance
I 10	Purpose built rodent bait stations must be installed inside control rooms and externally along the shed wall at a maximum of 10 m intervals A 3-ring rodent bait station must be in place (inside shed, shed and farm production perimeters)
I 11	The dead bird storage and disposal method must be approved Dead birds awaiting collection must be stored in a suitable freezer (-20 °C) to ensure carcasses remain in a non-putrefied state at all times. The freezer must be capable of holding mortality for a minimum of 3 days. The dead bird collection area must be situated at the entrance to the farm and outside the production area
I 12	A suitable amenities area (lunch room and toilet) with power and water must be available
I 13	A suitable change area and separate sex shower facilities must be available at the entrance to the production area

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NUMBER	ITEM
<b>J</b>	<b>Safety</b>
J 1	Safety signage must be installed to warn of any potential hazards (signage/markers/reflectors)
J 2	Speed limit signs for roads must be posted
J 3	All structures and equipment must comply with all regulatory requirements and certification guidelines
J 4	All fuel and chemical storage must meet the regulatory standards
J 5	Each shed must have a minimum of two access doors, or any greater requirement of the National Construction Code (NCC)

NUMBER	ITEM
<b>K</b>	<b>Power, Alarms and Generator</b>
K 1	Sufficient 3-phase power must be connected to the farm and capable of running all fans, cool pads, shed equipment etc. at maximum demand
K 2	The switchboards/motor control setters, controllers and alarm panel must all be housed in a well maintained 'IP56' rated cabinet
K 3	Electrical installations must include solar equipment and systems with the capacity to generate sufficient electricity to cover the average electricity consumed on the Farm for the growing of the chickens during daylight hours
K 4	An auto start generator must be available at all times, regularly verified and maintained to be in good working order
K 5	The generator must have a battery trickle-charger that maintains batteries at full charge
K 6	The generator must be connected to and capable of operating all equipment under full load and is to be rated for continuous operation
K 7	The generator must have a weather-proof shelter, or as required by the manufacturer
K 8	Sufficient supply of diesel must be available to enable generator operation for a minimum of 48 hours
K 9	An alarm system to alert of full power failure or any single power phase failure must be installed and operational This alarm system must be independently wired with battery back up A back up alarm system must be installed to alert in the event of a failure of the primary alarm system
K 10	Low and high temperature alarms must be installed and operational An independent wired temperature back up alarm must also be installed to alert of high temperature in each shed and be operational at all times
K 11	A shed controller alarm must be installed and operational
K 12	High and low static pressure alarms must be installed and operational
K 13	All alarm systems must be set up with immediate notification to a mobile phone or paging device to enable rapid response

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