## Thai Agriculture Standard Cage free

ltem	Requirement (Cage free)
1. Farm components	
1.1 Site	1.1.1 Farm shall be located in an environment that poses no risk of contamination from physical, chemical and biological hazards. If not, sufficient preventive measures shall be in place.
1.2 Farm layout	<ul><li>1.2.1 Farm shall have an appropriate size for layer raising. Layer houses shall not be too dense so as not to cause problem to the environment.</li><li>1.2.2 Farm shall be well laid out for good hygienic practices and</li></ul>
	animal sanitation.The operation areas shall be appropriately separated. 1.2.3 Farm shall have a fence or barrier around the area for layer raising
	1.2.4 An area shall be provided for egg gathering or storage before moving eggs out of the farm.
1.3 Layer house and equipment	<ul><li>1.3.1 Layer house shall be designed to display locations of equipment to facilitate layer raising. Example perches for laying hens and nesting houses</li><li>1.3.2 Raising area shall be adequate taking into account the principles</li></ul>
	of animal welfare. - Pullets: not exceeding 28 heads/m2 - Laying hens not exceeding 9/m2 - If systems of rearing are used where the laying hens can move
	freely between different levels, there shall be no more than four levels 1.3.3 Housing structure shall be strong, hygienic and well ventilated, easy to, clean, maintain and disinfect. Layer house shall be suitably arranged to facilitate egg laying and gathering.
	1.3.4 The environment shall be suitable for poultry welfare including ventilation, temperature and relative humidity compliance with the manual of farm management . Control gas level (Measured at the level of the laying hen head) Ammonia not exceeding 20 ppm, Carbon dioxide not exceeding 3,000 ppm.

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	1.3.5 Nest shall be clean and disinfected. Type and substrate of nest do
	not injure layer hens. All certifiers for cage-free laying hens agree that
	birds should have access to either individual nest boxes (1 per 7) or a
	colony nesting system are used, there must be at least 1 m2 nest
	space for a maximum of 120 hens
	1.3.6 Perches for laying hens can present natural behavior. Perches
	must not be mounted above the litter and the horizontal distance
	between perches must be at least 30 cm and the horizontal distance
	between the perch and the wall must be at least 20 cm
2. Farm management	
2.1 Farm manual	2.1.1 Farm management manual shall be made available, containing
	details on main operations i.e. raising system, managements of feed,
	water, animal health and poultry welfare.
2.2 Feed and water	2.2.1 Complete and concentrated feeds shall meet their quality and
	standard in compliance with the Animal Feed Quality Control Act.
	2.2.2 In case of on farm feed preparation or mixing of feed from
	Section 2.2.1, prohibited substances in accordance with Animal Feed
	Quality Control Act shall not be used.
	2.2.3 Feed shall be preliminarily checked for physical quality.
	Samples shall be kept for analysis; in case a problem arises.
	2.2.4 Separated feed storage area shall be provided. Feed shall be stored
	in a condition that is able to prevent deterioration and contamination.
	2.2.5 Sufficient feed and water for each layer shall be managed.
	Feeding
	- Pullets: the length of feeders should not be less than 4 cm per head
	- Laying hens: the length of feeders should not be less than 10 cm per head
	- circular feeders providing at least 4 cm per bird
	<u>Water</u>
	- Continuous drinking troughs providing 2,5 cm per hen. In addition,
	where nipple drinkers or cups are used, there shall be at least one nipple
	drinker or cup for every 10 hens.

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	2.2.6 Water for layer raising shall be clean. Result of water quality
	analysis shall be made available.
	- Microorganism detect by The Standard plate count < 500 Colony
	Forming Unit per ml
	- Coliform < 2.2 Most Probable Number per 100 ml
	- <i>E. coli</i> does not detect.
	- Salmonella spp. not detect.
	However, farm shall have result of water quality analysis at the fist audit
	and at least 1 time per farm certificate. If the environment of farm has a
	risks or suspicion of water quality shall have recheck water quality
2.3 Management of	2.3.1 Layer house, equipment and surrounding area shall be clean and
layer house	maintained in good and hygienic condition.
and equipment	2.3.2 Layer house and equipment shall be cleaned and disinfected
	after removing the previous flock of layer. The house shall be kept
	vacant for a certain period sufficient to break the cycle of infectious
	agents and to prevent their accumulation, except otherwise specified
	by the Department of Livestock Development for each area.
	2.3.3 Egg gathering containers such as egg trays shall be suitable and hygienic.
	2.3.4 Egg gathering containers shall be cleaned and disinfected every
	time before bringing in layer house and before each collecting.
3. Personnel	3.1 Duty and responsibility for each personnel shall be clearly assigned.
	3.2 Number of workers, animal husbandry supervisors or personnel
	trained on animal husbandry on layer raising and veterinarian holding
	a certificate of poultry farm shall be suitable for the number of layers.
	Farm veterinarian: supervise not more than 2,000,000 layers.
	3.3 Workers responsible for layer raising shall have knowledge by being
	trained or having on-the-job training in order to be able to manage the farm.
	3.4 Personnel shall have good personal hygiene in order to prevent
	contamination and spread of disease.
	3.5 All personal shall have health check-up at least once a year. Use
	Medical Certificate form in compliance with the Medical council of Thailand.

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4. Animal health	
4.1 Disease	4.1.1 Evidence or document specifying sources of layers shall be
prevention and	available.
control	4.1.2 Measures for prevention, control and elimination of disease
	introduced to farm by humans, vehicles, equipment and disease
	carrier animals shall be available.
	4.1.3 Disease surveillance and prevention plan shall be established by
	the farm veterinarian.
	4.1.4 Health of layer shall be monitored daily and carcass disposal
	shall be properly managed.
	4.1.5 In case of a disease outbreak or suspicion of an outbreak, actions
	shall be taken in compliance with the Animal Epidemic Act .
4.2 Disease therapy	4.2.1 Disease therapy shall be supervised by a farm veterinarian in
	accordance with the Veterinary Profession Act and related laws and
	regulations.
	4.2.2 Do not use growth promoter and non approves substance in
	compliance with the Ministry of Agriculture and Cooperatives
5. Animal welfare	5.1 Layers hen shall be raised in accordance with the animal welfare
	principles.
	5.2 The layer hen shall be fed a wholesome diet which is appropriate
	to their age and species and which is fed to them in sufficient quantity
	to maintain them in good health and satisfy their nutritional needs.
	Abnormalities layer hen must perform appropriate management.
	5.3 . The layer hen shall have a comfortable environment. Heat stork,
	breast burns and pododermatitis shall have appropriate management.
	5.4 The layer hen which appears to be injury or sickness must be
	cared for appropriately without delay. The layer hen which appears to
	be living in suffering shall be put to sleep or culling compliance with
	animal welfare principles.
	5.5 The layer hen shall be to express normal behavior.
	5.6 Layer farm management, to avoid stress, fear and abuse, e.g.
	gentle handling, reducing desirable noise etc.

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6. Management of	
pullets, laying hens	
and eggs	
6.1 Pullets and	6.1.1 Health, size and weight shall be randomly checked.
laying hens	6.1.2 Pullets or laying hens that are abnormal in physical condition,
	unhealthy, different in size and weight, or not suitable for laying eggs
	shall be culled out.
6.2 Eggs	6.2.1 Eggs shall be collected. Abnormal, cracked, or broken eggs shall
	be sorted out. Eggs stained with feces shall be separated for cleaning.
	6.2.2 Eggs shall be stored under shade with good ventilation or under
	a temperature controlled condition.
	6.2.3 Clean, well-ventilated or temperature controlled vehicle shall be
	used for egg transportation.
7. Environment	7.1 Garbage, waste water, and other wastes shall be appropriately
	disposed of so as not to be the sources of unpleasant odour and
	pathogens.
	7.2 Litter scattering after removing layers from the farm shall be
	prevented. Prevents diffusion of by spraying with disinfectant before
	moving and used litter shall be covered with canvas to guard against
	spilling during transportation. Do not reuse litter and compliance with
	the Department of Livestock Development
8. Recording	8.1 Data on main operations affecting animal health, disease control
	and egg production shall be recorded.
	8.2 Records shall be kept for at least 3 years.