

Sparboe Farms Production Guidelines for Caged, Cage-Free Chickens Laying Eggs For Human Consumption.

1.	Food and Water
a	<p>Objective 1: To provide access to portable water and diets designed to maintain full health of the chickens.</p> <p>Achievement: Written record of feed ingredients in diet with calculated or analyzed nutrient content of feed (e.g., crude protein, calcium percentage, phosphorus percentage).^{27,38,41} Management confirms the following:</p> <ol style="list-style-type: none"> 1. Feed or ingredients are wholesome and palatable to chickens.^{20,22,24,38,36} 2. Record of flock water consumption.³⁸ 3. Microbial and mineral content of water. Water supplied to chickens must be Potable.³⁸ 4. Record any incidence of nutritional deficiency diseases. 5. Plan for continuous feed during induced molt. (see section 11.a.)
b	<p>Objective 2: Assessment of the equipment needs to provide feed and water to the birds.</p> <p>Achievement: Proper operation of equipment is consistent with the manufacturers' instructions in providing adequate food and water. Management confirms the following:</p> <ol style="list-style-type: none"> 1. Birds have feed and water access.² 2. Distribution of feeders and drinkers (in cage-free facilities) should provide access for chickens. 3. Record of sanitation plan for cleaning feeders, drinkers, feed bins, as well as the food and water distribution system. 4. Daily inspection of feeders and drinkers. 5. Maintenance plan to ensure operational efficiency for feeders and drinkers.
c	<p>Objective 3: Monitoring and record keeping relative to feed and water at the production facility.</p> <p>Achievement: Review record keeping. Management provides records on the following:</p> <ol style="list-style-type: none"> 1. Feed provided to the birds. 2. Water usage by the birds.
2.	Health and Veterinary Care
a	<p>Objective 1: Implement science-based animal health programs.</p> <p>Achievement: Health and Veterinary Care to include prudent health products use, and provide appropriate veterinary care. Management confirms the following:</p> <ol style="list-style-type: none"> 1. Number of placed birds. 2. Number of mortality (including euthanized birds). 3. Productivity (feed provided, water consumption and eggs produced).¹⁴ 4. Morbidity of flock (i.e., noting recognizable husbandry conditions such as feathering condition, respiratory distress, swollen eyes, watery feces, lameness, foot lesions, cannibalism, etc., and reasons for morbidity if known). 5. Mortality (date of death, necropsy observations if performed, and reason for death if known). 6. Managerial/environmental modifications to minimize morbidity, mortality, or culling. 7. Medication treatment- in consultation with a veterinarian or appropriate personnel and a prescription written if required by law.
b	<p>Objective 2: Care of sick birds.</p> <p>Achievement: Investigate <u>unusual</u> level of morbidity and mortality, including sampling of fresh dead birds by management, a veterinarian, or a diagnostic lab if cause of morbidity and mortality is not apparent. Management confirms the following:</p> <ol style="list-style-type: none"> 1. Require that all veterinary products be used according to labeled guidelines.
c	<p>Objective 3: Care of injured, debilitated/non-ambulatory birds.</p> <p>Achievement: Management will confirm a plan of action for addressing abnormalities in the health of the chickens. The following measures may be used to evaluate action:</p> <ol style="list-style-type: none"> 1. Approximate number of birds or percentage of flock triggering action. 2. Description of debilitation or injury. 3. Description of actions taken.

d	<p>Objective 4: Euthanasia Plan.</p> <p>Achievement: Management confirms the following:</p> <ol style="list-style-type: none"> 1. Euthanasia plan as recommended by the American Veterinary Medical Association (AVMA) or other appropriate body.¹² 2. Plan for emergency mass depopulation such as CO2 gas. 3. Verification of training and competency in procedure used. 4. Record of disposal of carcass.
e	<p>Objective 5: Preventive health management.</p> <p>Achievement: Management will confirm that steps taken to ensure the health of the flock is regularly updated in consultation with a veterinarian.</p> <p>Management confirms the following:</p> <ol style="list-style-type: none"> 1. Vaccination program. 2. Anti-parasitic program (e.g., coccidiosis and mites). 3. Acceptable tolerance limits for flock performance (morbidity, mortality, or impaired growth) before consultation with a veterinarian is needed. <p>Additional measures for evaluating the health plan:</p> <ol style="list-style-type: none"> 1. Consultation with a poultry veterinarian and/or other qualified individual (i.e., entomologist). 2. Training for individuals working directly with birds. (see section 11 Employee Training)
3. Avian Influenza Testing	
a	<p>Objective 1: To monitor for the presence of avian influenza.</p>
	<p>Achievement: Management confirms participation in the NPIP.</p> <ol style="list-style-type: none"> 1. Operate testing program through the National Poultry Improvement Plan including signing a Memorandum of Agreement with state agency. (www.aphis.usda.gov/vs/npip/osa-npip.htm)
4. Chemical Usage	
a	<p>Objective 1: To manage the use of agricultural chemicals.</p>
	<p>Achievement: Management confirms the following:</p> <ol style="list-style-type: none"> 1. Chemicals, when used, (i.e., cleaning, pesticides, herbicides, fumigants) are stored away from feed and water.³⁷ 2. Expiration dates are clearly visible on chemical containers.
5. Biosecurity to prevent the spread of disease	
a	<p>Objective 1: Develop a visitation and access policy and maintain the infrastructure to achieve product conformity. (PVP 9.3)</p>
	<p>Achievement: Management confirms the following:</p> <ol style="list-style-type: none"> 1. Cleaning and sanitizing plan of house and equipment following depopulation. 2. Visual inspections are performed on maintenance of grounds (mowing) surrounding the house. 3. Routine daily sanitation practices are followed (e.g., dead bird disposal). 4. Evidence of control of access to facilities by vehicles and visitors (e.g., visitor's log). 5. Vermin and pest control plan, (i.e., rodents, flies, mites, darkling beetles, external).³⁷
6. Daily Inspections	
a	<p>Objective 1: To provide living conditions that meets the well-being needs of the chickens and a work environment need to achieve product conformity. (PVP 9.4)</p>
	<p>Achievement: Management confirms the following:</p> <ol style="list-style-type: none"> 1. Daily inspections performed on essential equipment (ventilation and lighting, as well as brooders, evaporative cooling, and fogging devices when used) along with monitoring and measuring devices. (PVP 10.7) 2. Determining ammonia levels on a regular basis. The ammonia level should not exceed 25 ppm. Seasonal clause: The guidelines do acknowledge and will adjust for temporary higher levels during colder temperatures. Since ammonia is a byproduct of manure produced by the chickens, keeping the levels down will improve the health and welfare of the chickens. ^{7,8,16,17,18,20,21,23,25,26,28,29,30,32,33,35} 3. If levels exceed 25 ppm of ammonia, management confirms that employees take immediate remedial action (i.e., purge the air and circulate fresh air into building), then re-test ammonia level. 4. Daily temperature (minimum and maximum). 5. Lighting program is established (duration of light hours and light intensity). 6. The emergency equipment is tested regularly (alarms and generators). <p>Environmental quality and monitoring may include the following measures. Management confirms employees take remedial</p>

	<p>action when observing the following:</p> <ol style="list-style-type: none"> 1. Aerial contaminants noticeable to human observer are extreme.^{19,39} 2. Health concerns of the birds are readily apparent (respiratory problems, conjunctivitis, swollen eyes, cleanliness of feathers, feather loss, foot and leg problems). 3. Employees observe bird behavior [in cage-free operations birds are homogeneously distributed within house; negative behavioral signs include panting, huddling, unusual locomotive activity, excessive aggressive behavior, stereotypic behavior (e.g., feather pecking and cannibalism).
7.	Cage space, cage-free and free-range space requirements
a	Objective 1: To provide science-based space allowances measured on a per bird basis.
	<p>Achievement: Management confirms the following:</p> <ol style="list-style-type: none"> 1. Birds hatched after August 1, 2010 will be housed at a minimum of 67 sq. inches per bird. This cage density will meet the needs of most strains of white shell egg-laying chickens by allowing birds to stretch their wings, stand upright in the cage, and have access to feed and water. Birds hatched prior to August 1, 2010 will meet a cage density of no less than 54 sq. inches per bird. Cage density will be calculated by the “house average” of each barn. Brown egg layers are larger bodied birds. All brown layer chicks hatched after August 1, 2010 as replacement flocks will be housed at a minimum of 76 sq. inches per bird. Since cage density impacts on the productivity of the chicken and provides an indication of the health of the chicken, case studies on density have been researched.^{1,2,3,4,6,9} 2. Cage-Free space: Chickens should be able to roam freely. Stocking density at 1.5 square feet or 1.2 square feet with perches (slatted floors allowing perching behavior). Research into cage-free stocking density provides variable conclusions.^{10,14,29,31,32,36} 3. Free-range space: Stocking density of 250-500 chickens per acre of land. Research into free-range production of eggs provides variable conclusions.^{10,20,31}
8.	Free-Range
a	Objective 1: To provide science-based specifics ³¹ for free-range rearing of chickens.
	<p>Achievement: Range shelters are away from the building to provide protection from rain. Management confirms the following:</p> <ol style="list-style-type: none"> 1. Feeders and waterers on the range have covers to protect feeding chickens from rain. 2. A porch or overhand is attached to the buildings to encourage chickens to exit. 3. Pasture/range/ground cover condition includes grass. 4. Predator control measures are in place to protect the chickens.
9.	Nests in Cage-Free and Free-Range Operations
a	Objective 1: To provide nests for cage-free operations.
	<p>Achievement: Management confirms the following:</p> <ol style="list-style-type: none"> 1. One nest for every 5 chickens. 2. Nest size at least 7 in x 9 in. 3. Chickens have easy access to the nest. 4. Employees regularly monitor the physical condition and cleanliness of nests. 5. Employees regularly monitor the incidence of floor eggs.
10.	Beak Trimming
a	Objective 1: To reduce feather picking by other chickens.
	<p>Achievement: Chickens that are beak trimmed must be trimmed by 10 days of age.¹¹ Some strains may not need to be trimmed due to genetic improvements reducing aggression or management may choose not to beak trim at all. Management confirms the following:</p> <ol style="list-style-type: none"> 1. Provide records to show the beak trimming crews are trained and the equipment is regularly maintained. 2. Employees check on mortality soon after beak trimming to determine if additional attention is warranted.
11.	Molting
a	Objective 1: If a company chooses to molt a flock, the induced molt follows specific guidelines.
	<p>Achievement: Management confirms the following:</p> <ol style="list-style-type: none"> 1. That a palatable diet is fed continuously to meet the needs of the body weight requirements (non-anorexic feeding program).^{5,15,34,40} 2. That a photoperiod (day-length) of not less than 8 hours of light is provided. 3. That water is available at all times.

12.	Litter and manure management for cage-free chickens
a	Objective 1: To provide wood chips or like material for cage-free chickens to walk on and to absorb moisture.
	Achievement: Management confirms the following: <ol style="list-style-type: none"> 1. That the litter depth is adequate to serve purpose of absorbing moisture. 2. That litter quality is adequate for use with chickens. 3. That litter moisture is loosely compacted when squeezed in the hand.
13.	Employee Training
a	Objective 1: To provide training for chicken husbandry practices at the production facility.
	Achievement: Management confirms the following: <ol style="list-style-type: none"> 1. That employees understand what is expected of them in an appropriate language. 2. That management has updated any training program changes.
b	Objective 2: Develop an emergency plan for dealing with natural disasters, foreign animal diseases (FAD), other animal diseases, and bioterrorism.
	Achievement: Management confirms the following: <ol style="list-style-type: none"> 1. A plan has been established for addressing catastrophic losses, quarantine procedures, and mass depopulation procedures in accordance with federal, state, and local regulations. 2. A plan for emergencies includes a list of emergency phone numbers.
c	Objective 3: To provide personnel training in working directly with animals (i.e., animal handling and catching, how to identify culls, the proper methods of euthanasia, and biosecurity measures).
	Achievement: Management confirms the following: <ol style="list-style-type: none"> 1. Training/educational materials are provided by the company (in the language appropriate for the individuals) to help in understanding responsibilities. 2. Does employee know who in management to ask for additional training? 3. That competencies of employees are verified through observations of workers carrying out their responsibilities. 4. Employee appointed to oversee Sparboe Farms PVP, reports to management on Sparboe Farms PVP matters, and conducts self-audit. (see sample self-audit in appendix)
14.	Mortality disposal to minimize potential disease concerns and public perceptions
a	Objective 1: To provide a plan for disposing of mortality.
	Achievement: Management confirms their plan for disposing of mortality.
b	Objective 2: To provide euthanasia procedures.
	Achievement: Management confirms their procedures for euthanizing chickens.
15.	Sanitation
a	Objective 1: Develop schedule for cleaning farm facilities.
	Achievement: Management confirms the following: <ol style="list-style-type: none"> 1. A regular schedule for cleaning facilities during or after a flock.
16.	Handling/Catching
a	Objective 1: To develop plan for acceptable handling procedures.
	Achievement: Management confirms the following: <ol style="list-style-type: none"> 1. Proper animal handling has been taught to employees for such times that the chickens are moved or vaccinated. 2. Visual appraisal of animal handling technique (chicken's position while holding, wing flapping, vocal expression, if any, by the individual chicken being handled). 3. Employee signs written acknowledgment of the company's plan on properly handling chickens.

b	Objective 2: To provide specific catching protocols.
	<p>Achievement: Management confirms the following:</p> <ol style="list-style-type: none"> 1. Employees understand they must minimize bird injuries when catching chickens. 2. Employees understand the maximum number of chickens that can be held simultaneously. 3. There is a regular evaluation of individuals and equipment, if any, for catching the chickens.
17.	Transportation
a	Objective 1: To provide transportation when chickens are relocated that takes into consideration the health of the chicken.
	<p>Achievement: Management confirms the following:</p> <ol style="list-style-type: none"> 1. Employees have evaluated the condition of transportation crates; (birds unable to escape). 2. Employees consider minimizing environmental stressors during transportation.
18.	Backfilling Prohibition
a.	<p>Objective 1: The process of replacing birds in cages where mortality has occurred (known in the industry as “backfilling”) is prohibited with the exception of a natural disaster or disease occurrence that destroys upwards of 90% of the flock. Lesser mortality than 90% would not permit backfilling into that barn or flock.</p> <p>Achievement: Management confirms that no chickens have been replaced in cages due to mortality with the exception of a 90% loss in number of chickens following any catastrophic incident.</p>

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