



## Poultry Evaluation Tool

To be used in conjunction with the Food Alliance Whole Farm/Ranch Evaluation Tool

Operation Name:	
Address:	
Evaluation Date:	
Evaluator/Inspector:	

### Scoring System

Compliance with the Food Alliance Poultry standard includes the following:

1. Full compliance with all fixed evaluation criteria
2. Average scores of 3.0 (75%) or above in each of the following evaluation areas:
  - a. Healthy and Humane Care for Livestock: Living Conditions
  - b. Healthy and Humane Care for Livestock: Other Criteria
  - c. Waste Management
  - d. Pest Management

### Instructions for Use

1. **Scored Criteria:** Using the performances indicators listed in Levels 1-4 of each of the scored evaluation criteria, assign a score for each criterion. Level 1 is worth 1 point; Level 2 is worth 2 points, and so on. Scoring half points is allowed. Example: All Level 2 requirements and half of Level 3 requirements are met. In this instance, a score of 2.5 may be assigned. Fixed Criteria: Indicate whether the operation complies with the requirements of each fixed criterion, and verification method(s) used.
2. **Inspectors:** In the NOTES section at the end of each criterion, include any pertinent additional information which was considered in determining the score. These notes will provide important background that will be carefully considered in the final certification decision. As applicable, please include reference to documents which were reviewed to verify compliance with requirements.
3. **Completion:** At the end of each set of evaluation criteria, complete the scoring table and calculate the final percentage score. Points for non-applicable criteria are not included in the final percentage score.

## **Fixed Criteria**

To have poultry production certified by Food Alliance, all the following must be met:

1. Feed-additive antibiotic use or nontherapeutic antibiotic use is not permitted.<sup>i</sup> This prohibition includes ionophores.
2. Sick birds should be treated; however, if antibiotics are used within two weeks of slaughter, birds cannot be sold as Food Alliance certified.
3. Arsenicals are not permitted in feed.
4. Feedstuffs containing mammalian-derived and/or poultry-derived protein are not permitted with the exception of milk and milk products.
5. Cages are not permitted. Wire floors are not permitted.
6. Severe beak trimming is not permitted.
7. Toe clipping and dubbing are not permitted.
8. To ensure that good living conditions are maintained, birds must be checked daily for symptoms of stress or illness.
9. All poultry raised for meat must be maintained on a normal daylight cycle, using a minimum of 8 hours of light per day. Supplemental light can be used for egg production, with a maximum of 16 hours of light per day.

**Scored:** To have poultry production certified by Food Alliance, an operation must score an average of 3.0 out of 4 overall in each of the four areas listed below:

### **1. Product Specific Evaluation Criteria for “Healthy and Humane Care for Livestock: Living Conditions”**

Meat Production: Chicken and Turkeys  
Egg Production: Pullets

Egg Production: Layers

### **2. Product Specific Evaluation Criteria for “Healthy and Humane Livestock: Other”**

Animal Feed and Nutrition  
Animal Health  
On-farm Handling and Transportation

### **3. Product Specific Evaluation Criteria for “Waste Management”**

Manure Management  
Manure Storage

Hazard Reduction and Sanitation

### **4. Product Specific Evaluation Criteria for “Pest Management”**

Rodents  
Flies

External Parasites  
Internal Parasites

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## **Instructions for Use**

- 1. Production practices are evaluated according to Food Alliance criteria (listed on the following pages of this document) and then ranked in a four-step process from Level 1 to Level 4: Points are only earned for the highest level achieved.**
- 2. Scoring partial points is allowed. Example: Half of the farm is in a four-year crop rotation, a Level 3 practice. You may score 2.5 points, or half the increase between Level 2 and Level 3 as a result.**
- 3. No points are earned for a criterion that is not applicable (N/A) to the operation or region.**
- 4. For producers reviewing this evaluation tool: The scorecard at the end of this document identifies the minimum number of points required to be considered for certification. This is only a guideline for your use and does not guarantee acceptance of your application.**
- 5. Inspectors should make notes on each criterion describing how they arrived at decisions, including means used to verify all specific producer claims. These notes will provide important background, which will be carefully considered in the final certification decision. A section for notes is also included at the end of this document. Please make note of any sections that were not applicable and the reason. Also include any Best Management Practices (BMPs) implemented by the producer that are not listed in this inspection tool.**

# Healthy and Humane Care for Livestock: Living Conditions

## Meat Production: Chicken and Turkeys

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**Level 1:** All legal requirements and industry association standards are met for space/stocking rate, and size and configuration of indoor shelter. **All the following apply:**

- Manager is aware of legal requirements/industry standards.
- Manager can explain how operation meets those requirements and standards.
- Structures are designed and maintained to prevent injury.
- Litter is provided in sufficient amounts to maintain dryness and provide insulation and padding from the floor.
- Other (please specify):

**Level 2:** As per Level 1, and **all the following apply:**

- Housing facilities are well maintained and managed.
- Housing facilities are thoroughly cleaned of debris (spider webs, construction debris, medical debris, etc.), and equipment is cleaned and disinfected between uses.
- Litter is kept in good condition and changed as needed.
- Housing facilities are designed and operated to protect groundwater quality.
- Housing facilities are designed to prevent injury, maintain required ambient temperature, and provide protection from predators.
- Ventilation is adequate to prevent humidity, dust, and ammonia buildup.
- Ammonia concentration is measured and recorded every two weeks.<sup>2</sup>
- Ammonia concentrations are generally below 15ppm. Ammonia concentration ranges do not exceed 25ppm except for short periods of time and/or under unusual circumstances. The reasons for concentrations exceeding 25ppm must be documented.
- Stocking density is based on the average final body weight of the flock. For chickens, maximum stocking density is not higher than 31kg/m<sup>2</sup> (6.3lb/ft<sup>2</sup>). For turkeys, maximum stocking density is not higher 32.6kg/m<sup>2</sup> (6.7lb/ft<sup>2</sup>).
- Other (please specify):

**Level 3:** As per Level 2, and one of the following applies – Either:

- 1) The housing facility is designed to provide the birds with natural daylight, and fresh air as bird development and weather conditions permit. **All the following apply:**
  - Housing facilities are properly insulated.
  - Housing facilities are open-sided with curtains or other coverings that can be closed during bad weather, in order to allow natural daylight and fresh air to enter.
  - Housing facilities provide cover or other environmental enhancement to reduce aggression and lead to more uniform use of space.
  - A minimum light intensity of 2 foot-candles is provided during light periods.
  - For any 24-hour period, there must be a 6-hour period of continuous darkness, unless the natural period of darkness is less.
  - Alarms are in place to alert managers to power, equipment and temperature problems.
- Stocking density is based on the average final body weight of the flock. For chickens, maximum stocking density is not higher than 25.75kg/m<sup>2</sup> (5.25lb/ft<sup>2</sup>). For turkeys, maximum stocking density is not higher than 23.25kg/m<sup>2</sup> (4.75lb/ft<sup>2</sup>).
- Other (please specify):

2) The housing facility is not designed to provide the birds with natural daylight. Access to natural daylight is provided by outdoor access. The outdoor area must be designed and operated to capture runoff, and prevent soil erosion and water pollution. **All the following apply:**

- Housing facilities are properly insulated.
- Housing facilities provide cover or other environmental enhancement to reduce aggression and lead to more uniform use of space.
- A minimum light intensity of 2 foot-candles is provided during light periods.
- For any 24-hour period, there must be a 6-hour period of continuous darkness, unless the natural period of darkness is less.
- Alarms are in place to alert managers to power, equipment and temperature problems.
- Stocking density is based on the average final body weight of the flock. For chickens, maximum stocking density is not higher than 25.75kg/m<sup>2</sup> (5.25lb/ft<sup>2</sup>). For turkeys, maximum stocking density is not higher than 23.25kg/m<sup>2</sup> (4.75lb/ft<sup>2</sup>).
- Number and location of exit openings to outdoor area are sufficient to allow all birds ready access to outdoor area.
- Exit opening must allow for the free passage of more than one bird at a time.
- Controls or barriers are in place to prevent access by wild birds, including access to food and water supplies.
- Birds must have access to outdoor area during daylight hours for a minimum of 8 hours, weather permitting. If the period of natural daylight is less than 8 hours, the access period should extend for the length of natural daylight.
- Outside area is free of plants poisonous to poultry.
- Outdoor area is free of debris and has sufficient drainage to prevent long-lasting muddy conditions.
- Outdoor area vegetation is rested regularly to allow for re-growth and parasite control.
- Outdoor area has shelter from heat, cold and wind.
- Outdoor area has shade provided.
- Outdoor area is designed to prevent attacks from ground-based predators.
- Outdoor area is covered to prevent contamination by wild bird manure and, where necessary, protection from aerial attacks.
- Outdoor area is designed to encourage use by birds.

For any 24-hour period, there must be an 8-hour period of continuous darkness, unless the natural period of darkness is less.

Other (please specify):

**Level 4:** As per Level 3, and the housing facility is designed to provide the birds with natural daylight, as bird development and weather conditions permit, and the birds are not housed entirely indoors. The outdoor area must be designed and operated to capture runoff and prevent soil erosion and water pollution. **All the following apply:**

- Number and location of exit openings to outdoor area are sufficient to allow all birds ready access to outdoor area.
- Exit opening must allow for the free passage of more than one bird at a time.

- Controls or barriers are in place to prevent access by wild birds, including access to food and water supplies.
- Birds must have access to outdoor area during daylight hours for a minimum of 8 hours, weather permitting. If the period of natural daylight is less than 8 hours, the access period should extend for the length of natural daylight.
- Outside area is free of plants poisonous to poultry.
- Outdoor area is free of debris and has sufficient drainage to prevent long-lasting muddy conditions.
- Outdoor area vegetation is rested regularly to allow for re-growth and parasite control.
- Outdoor area has shelter from heat, cold and wind.
- Outdoor area has shade provided.
- Outdoor area is designed to prevent attacks from ground-based predators.
- Outdoor area is covered to prevent contamination by wild bird manure and, where necessary, protection from aerial attacks.
- Outdoor area is designed to encourage use by birds.
- For any 24-hour period, there must be an 8-hour period of continuous darkness, unless the natural period of darkness is less.
- Other (please specify):

**Score:**

**Verification methods and notes:**

### **Egg Production: Pullets**

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N/A: No pullets are present on this operation.

**Level 1:** All legal requirements and industry association standards are met for space/stocking rate, and size and configuration of indoor shelter. **All the following apply:**

- Manager is aware of legal requirements/industry standards.
- Manager can explain how operation meets those requirements and standards.
- Structures are designed and maintained to prevent injury.
- Litter is provided in sufficient amounts to maintain dryness and provide insulation and padding from the floor.
- Other (please specify):

**Level 2:** As per Level 1, and **all the following apply:**

- Housing facilities are well maintained and managed.
- Housing facilities are thoroughly cleaned of debris (spider webs, construction debris, medical debris, etc.), and equipment is cleaned and disinfected between uses.
- Litter is kept in good condition and changed as needed.
- Housing facilities are designed and operated to protect groundwater quality.
- Housing facilities are designed maintain required ambient temperature and provide protection from predators.
- Ventilation is adequate to prevent humidity, dust, and ammonia buildup.
- Ammonia concentration is measured and recorded every two weeks.<sup>3</sup>
- Ammonia concentrations are generally below 15ppm. Ammonia concentration ranges do not exceed 25ppm except for short periods of time and/or under unusual

circumstances. The reasons for concentrations exceeding 25ppm must be documented.

- The maximum stocking density during the rearing period is not higher than 10 pullets/m<sup>2</sup> (1 pullet/0.9 ft<sup>2</sup>). If the same facility is used for rearing the pullets and housing the hens, density is based on the requirement for the hens as given in that section.
- Other (please specify):

**Level 3:** As per Level 2, and one of the following applies – Either:

- 1) The housing facility is designed to provide the pullets with natural daylight, and fresh air as pullet development and weather conditions permit. **All the following apply:**
  - Housing facilities are properly insulated.
  - Housing facilities are open-sided with curtains or other coverings that can be closed during bad weather, in order to allow natural daylight and fresh air to enter.
  - Housing facilities provide cover or other environmental enhancement to reduce aggression and lead to more uniform use of space.
  - A minimum light intensity of 2 foot-candles is provided during light periods.
  - After the first week of age, for any 24-hour period, there must be a 6-hour period of continuous darkness, unless the natural period of darkness is less.
  - Alarms are in place to alert managers to power, equipment and temperature problems.
  - Training perches are available at three weeks of age.
  - Other (please specify):

**OR:**

- 2) The housing facility is not designed to provide the pullets with natural daylight. **All the following apply:**
  - Housing facilities are properly insulated.
  - Housing facilities provide cover or other environmental enhancement to reduce aggression and lead to more uniform use of space.
  - A minimum light intensity of 2 foot-candles is provided during light periods.
  - After one week of age, for any 24-hour period, there must be a 6-hour period of continuous darkness, unless the natural period of darkness is less.
  - Alarms are in place to alert managers to power, equipment and temperature problems.
  - Training perches are available at three weeks of age.
  - Other (please specify):

**Level 4:** As per Level 3, and the housing facility is designed to provide the pullets with natural daylight, as pullet development and weather conditions permit, and the pullets are not housed entirely indoors. The outdoor area must be designed and operated to capture runoff and prevent soil erosion and water pollution. All the following apply:

- Number and location of exit openings to outdoor area are sufficient to allow all pullets ready access to outdoor area.
- Exit opening must allow for the free passage of more than one pullet at a time.
- Controls or barriers are in place to prevent access by wild birds, including access to food and water supplies.



- After 10 weeks of age pullets must have access to outdoor area during daylight hours for a minimum of 6 hours, weather permitting.<sup>4</sup>
- Outside area is free of plants poisonous to poultry.
- Outdoor area is free of debris and has sufficient drainage to prevent long-lasting muddy conditions.
- Outdoor area vegetation is rested regularly to allow for re-growth and parasite control.
- Outdoor area has shelter from heat, cold and wind.
- Outdoor area has shade provided.
- Outdoor area is designed to prevent attacks from ground-based predators.
- Outdoor area is covered to prevent contamination by wild bird manure and, where necessary, protection from aerial attacks.
- Outdoor area is designed to encourage use by the pullets. If feed and water is provided outdoors the same type of equipment should be used as is used indoors.
- For any 24-hour period, there must be a 6-hour period of continuous darkness, unless the natural period of darkness is less.
- Other (please specify):

**Score:**

**Verification methods and notes:**

### **Egg Production: Layers**

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**Level 1:** All legal requirements and industry association standards are met for space/stocking rate, and size and configuration of indoor shelter. Hens may be brought into production by light (stimulated using supplemental artificial light), to a maximum of 16 hours of light per day. **All the following apply:**

- Manager is aware of legal requirements and industry standards.
- Manager can explain how the operation meets those requirements and standards.
- Structures are designed and maintained to prevent injury.
- Litter is provided in sufficient amounts to maintain dryness and provide insulation from the floor.
- A clean nesting area is provided, and
  - A production system using individual nest boxes must provide at least 1 nest for every 4-6 hens.
  - A production system using community nesting must provide at least 9 ft<sup>2</sup> of nesting space per 100 birds.
- Other (please specify):

**Level 2:** As per Level 1, and all the following apply:

- If slatted floors are used, some scratch area is provided.
- Perches are provided. Perches are smooth with no sharp or dangerous protrusions or splintering.
- Housing facilities are well maintained and managed.
- Housing facilities are thoroughly cleaned of debris (litter, spider webs, construction debris, medical debris, etc.), and premises and equipment are cleaned and disinfected between uses.
- Housing facilities are designed and operated to protect groundwater quality.

- Housing facilities are designed to prevent injury, maintain required ambient temperature, provide protection from predators and keep out wild birds.
- Ventilation is adequate to prevent humidity, dust, and ammonia buildup.
- Ammonia concentration is measured and recorded every two weeks.<sup>5</sup>
- Ammonia concentrations are generally below 15ppm. Ammonia concentration ranges do not exceed 25ppm except for short periods of time and/or under unusual circumstances. The reasons for concentrations exceeding 25ppm must be documented.
- Stocking density
  - Single level chicken house: not higher than 1 bird/1.5 ft<sup>2</sup> (7 birds/m<sup>2</sup>)
  - Chicken house with littered floor and a raised slatted area over a manure pit/manure collection belt: not higher than 1 bird/1.2 ft<sup>2</sup> (9 birds/m<sup>2</sup>)
  - Aviary/multi-tier chicken house<sup>6</sup>: each bird must have at least 1 ft<sup>2</sup> (0.09 m<sup>2</sup>) of living space.
- Other (please specify):

**Level 3:** As Level 2, and one of the following applies - Either:

- 1) The housing facility is designed to provide the birds with natural daylight, as bird development and weather conditions permit. **All the following apply:**
  - At least 6 inches of perch space per bird is provided.
  - At least 30% of floor is not slatted, providing multiple levels and a litter covered scratching area.
  - Housing facilities are properly insulated.
  - Housing facilities are open-sided with curtains or other coverings that can be closed during bad weather, in order to allow natural daylight and fresh air to enter.
  - A minimum light intensity of 2 foot-candles is provided during light periods.
  - For any 24-hour period there must be a 6-hour period of continuous darkness, unless the natural period of darkness is less.
  - Stocking density
    - Single level chicken house: not higher than 1 bird/1.75 ft<sup>2</sup> (6 birds/m<sup>2</sup>)
    - Chicken house with littered floor and a raised slatted area over a manure pit/manure collection belt: not higher than 1 bird/1.35 ft<sup>2</sup> (8 birds/m<sup>2</sup>)
    - Aviary/multi-tier chicken house<sup>7</sup>: each bird must have at least 1.23 ft<sup>2</sup> (0.11 m<sup>2</sup>) of living space
  - Alarms are in place to alert managers to power, equipment and temperature problems.
  - Other (please specify):

OR:

- 2) The housing facility is not designed to provide the birds with natural daylight. Access to natural daylight is provided by outdoor access. The outdoor area must be designed and operated to capture runoff and prevent soil erosion and water pollution. **All the following apply:**
  - At least 6 inches of perch space per bird is provided.
  - At least 30% of floor is not slatted, providing multiple levels and a litter covered scratching area.

- Housing facilities are properly insulated.
- A minimum light intensity of 2 foot-candles is provided during light periods.
- For any 24-hour period there must be a 6-hour period of continuous darkness, unless the natural period of darkness is less.
- Stocking density.
- For any 24-hour period there must be a 6-hour period of continuous darkness, unless the natural period of darkness is less.
  - Single level chicken house: not higher than 1 bird/1.75 ft<sup>2</sup> (6 birds/m<sup>2</sup>)
  - Chicken house with littered floor and a raised slatted area over a manure pit/manure collection belt: not higher than 1 bird/1.35 ft<sup>2</sup> (8 birds/m<sup>2</sup>).
  - Aviary/multi-tier chicken house<sup>8</sup>: each bird must have at least 1.23 ft<sup>2</sup> (0.11 m<sup>2</sup>) of living space.
- Alarms are in place to alert managers to power, equipment and temperature problems.
- Number and location of exit openings to outdoor area are sufficient to allow all birds ready access to outdoor area.
- Exit opening must allow for the free passage of more than one bird at a time.
- Birds must have access to outdoor area during daylight hours for a minimum of 8 hours, weather permitting. If the period of natural daylight is less than 8 hours, the access period should extend for the length of natural daylight.
- Outdoor area is free of plants poisonous to poultry.
- Outdoor area is free of debris and has sufficient drainage to prevent long-lasting muddy conditions.
- Outdoor area vegetation is rested regularly to allow vegetation re-growth and parasite control.
- Outdoor area has shelter from heat, cold and wind.
- Outdoor area has shade provided.
- Outdoor area is designed to prevent attacks from predators.
- Outdoor area is designed to encourage use by birds.
- Other (please specify):

**Level 4:** As per Level 3, and the housing facility is designed to provide the birds with natural daylight, as bird development and weather conditions permit, and the birds are not housed entirely indoors. The outdoor area must be designed and operated to capture runoff and prevent soil erosion and water pollution. All the following apply:

- Number and location of exit openings to outdoor area are sufficient to allow all birds ready access to outdoor area.
- Exit opening must allow for the free passage of more than one bird at a time.
- Birds must have access to outdoor area during daylight hours for a minimum of 8 hours, weather permitting. If the period of natural daylight is less than 8 hours, the access period should extend for the length of natural daylight.
- Outdoor area is free of plants poisonous to poultry.
- Outdoor area is free of debris and has sufficient drainage to prevent long-lasting muddy conditions.
- Outdoor area vegetation is rested regularly to allow vegetation re-growth and parasite control.
- Outdoor area has shelter from heat, cold and wind.
- Outdoor area has shade provided.

- Outdoor area is designed to prevent attacks from predators.
- Outdoor area is designed to encourage use by birds.
- For any 24-hour period, there must be an 8-hour period of continuous darkness, unless the natural period of darkness is less.
- Other (please specify):

**Score:**

**Verification methods and notes:**

## **Healthy and Humane Care for Livestock: Other**

### **Animal Health**

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**Level 1:** All legal requirements for poultry health are met. All the following apply:

- Manager is aware of legal requirements and industry standards.
- Manager can explain how the operation meets those requirements.
- All chicks are obtained from NPIP-certified hatcheries.<sup>9</sup>
- The flock appears healthy and free of disease and parasites.
- Records indicate compliance with legal requirements and industry standards for vaccinations, administration of medicines and record keeping.
- Other (please specify):

**Level 2:** As per Level 1, and birds are monitored daily for injury, disease or abnormal behaviors, and problems are promptly corrected. All the following apply:

- Handler can report the natural behaviors of the species raised and can describe how those behaviors are affected by the operation's housing facilities.
- Beaks may be trimmed if necessary for good animal welfare. Chicks must be 10 days old or younger when beak trimming is done. Beaks must be trimmed by trained personnel using humane methods, such as a hot blade or infrared.
- No evidence of unresolved health issues.
- Facilities for isolating sick birds are available.
- Steps are taken and documented to limit transfer of disease between birds of different ages and origins.
- Written records of mortality/morbidity, medical history, feed consumption, and production (weight gain or egg production) are kept. Records are used to identify quickly changes that may indicate a disease state.
- When necessary, sick or injured birds are euthanized promptly by trained personnel using humane methods, such as cervical dislocation or gas.<sup>10</sup>
- Equipment and surfaces are well-maintained to avoid sharp edges, protruding nails or other sources of injury.
- Fresh litter is stored indoors and kept clean, dry and free of rodents and other pests. Contaminated or wet litter cannot be used in chicken houses and must be discarded.
- Other (please specify):

**Level 3:** As per Level 2, and all the following apply:

- Operation has a written health plan, and implementation of the plan is supported by documentation.

- Facilities design allows for effective cleaning of surfaces and there is a regular program of facility cleaning and disinfection in place.
- Breed selection is appropriate for climate and conditions.<sup>11</sup>
- Vaccines are permitted.<sup>12</sup>
- Management practices are used to control feather pecking, cannibalism, etc.<sup>13</sup>
- Other (please specify):

**Level 4:** As per Level 3, and all the following apply:

- Policies and procedures are in place to ensure regular evaluation and monitoring of flock health.
- Policies and practices are in place for ensuring low-stress handling and use of preventative health measures.
- Written records show very low incidence of injury or disease.
- Written records documents how injuries or disease is handled.
- Buildings are cleaned, disinfected and tested for pathogens between all flocks.
- Beak trimming is not required, as other management practices are used to control feather pecking, cannibalism, etc.<sup>14</sup>
- Producer keeps informed on the incidence of avian disease in the area, and appropriate vaccines are used as a precaution when an outbreak occurs in the area.
- Producer is registered with the National Animal Identification System.
- Other (please specify):

**Score:**

**Verification methods and notes:**

## **Animal Feed and Nutrition**

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**Level 1:** Basic necessities and all legal requirements for water and feed supply quantity and quality are met. Feed must be appropriate to age & species of birds, and adequate to meet their nutritional needs. All the following apply:

- Manager is aware of legal requirements and industry requirements.
- Manager can explain how the operation meets those requirements.
- Feed and water supplies are fresh and clean.
- Water supplies are freely available to all animals at all times.
- Other (please specify):

**Level 2:** As per Level 1, and feed storage is covered. Pesticides labeled Danger are not used to manage stored feed pests. All the following apply:

- Precipitation and runoff do not contact stored feed.
- Feed is stored at the proper temperature and humidity to maintain optimum quality.
- Stored feed is free of mold and insects, wild bird and rodent infestation.
- Feeding and watering equipment size and spacing is based on specifications provided by manufacturer of equipment, and adequate for the maximum number of birds present at any one time.<sup>15</sup>
- Feeding and watering devices are managed to prevent build-up of wet/caked litter.

- Producer is aware of and can describe the nutrient requirements of the various developmental stages of the flock.
- Producer can describe and/or demonstrate how feed rations and water supplies are adjusted to meet age- and development- specific needs of the flock.
- Other (please specify):

**Level 3:** As per Level 2, and feed storage is managed to prevent pest damage. Pesticides labeled Warning are not used to manage pest damage or contamination of stored feed. All the following apply:

- Storage facilities are down slope of and/or sufficient distance from surface water, wells or untreated drainage systems to prevent contamination in the event of flooding.
- No pesticides are used to control contamination of stored feed. Contamination is controlled by non-pesticide alternatives.
- Stored feed is not more than 6 weeks old.<sup>16</sup>
- Changes in feed type are phased in.
- Producer maintains a written record of feeds used, including feed ingredients and nutrient content.<sup>17</sup>
- Systems are in place for ensuring adequate food and water in the event of a power outage or other emergency situation.
- Feed is not withdrawn for any reason except for medical need or for up to 12 hours before slaughter. Feed cannot be withdrawn to initiate molt.
- Other (please specify):

**Level 4:** As per Level 3, and preventative measures are taken to avoid contamination of stored feed. All the following apply:

- All feed is sustainably raised and certified by Food Alliance or another sustainable/organic certifier. Specify certification:
- Feed storage prevents contamination (e.g. elevated bins, closed containers).
- The contribution of vegetation and animal proteins obtained in the outside area is taken into consideration when determining the nutrition needs of the flock.
- Stored feed is not more than 2 weeks old.
- Other (please specify):

**Score:**

**Verification methods and notes:**

### **On-Farm Handling and Transportation**

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**Level 1:** Birds are handled calmly and firmly. Crates in good repair to prevent injury and comply with regulations. Loading and equipment set-up is managed to prevent injury to birds. All the following apply:

- Manager is aware of legal requirements and industry standards.
- Manager can explain how the operation meets those requirements and standards.
- Raised voices and aggressive actions are not evident during handling operations.
- No abuse is evident.
- Trucks floors are leak-proof to prevent manure from dripping onto the highway.
- Birds cannot escape during transport.
- Other (please specify):

**Level 2:** As per Level 1, and birds are checked daily to detect and resolve problems before undue stress occurs. Handlers are well trained and understand natural behaviors and factors that cause stress in the birds under his or her care. Handlers can describe the natural behaviors of the species raised. An experienced supervisor supervises catching crews. All the following apply:

- Handlers recognize and can describe stress factors.
- Handlers can describe means for avoiding stress.
- Temperature and weather conditions are factored into transportation in order to reduce thermal stress.
- Transport containers (crates, cages, bins) are designed to prevent bird injury and provide adequate ventilation, and are kept clean, dry and in good repair.
- Other (please specify):

**Level 3:** As per Level 2, and birds are checked twice or more daily to detect and resolve problems before undue stress occurs. At least seven of the following apply:

- Birds do not show fear or stress, e.g., rushing to escape or running into each other, during handling or transport operations.
- Birds are supported as much as possible when handled to avoid injury to legs or wings.
- Birds are monitored for leg damage, wing damage, or other injuries from handling.
- Manager monitors live haul crew to avoid animal injuries.
- Lowered lighting or alternative lighting (i.e. blue bulbs) is used during catching.
- If chickens are carried inverted, handlers do carry not more than 3 birds in each hand.
- Crates containing live birds are moved smoothly and kept in a horizontal position.
- Temperatures and air quality in transit are adequate to reduce bird stress, e.g., transit only in ventilated, temperature-controlled vehicles, or during appropriate conditions (e.g., cool times of day and year).
- Panels or tarps are used during transit to protect birds from inclement weather.
- Transport containers (crates, cages, bins) are made of material easy to wash & disinfect.
- Transport vehicles are cleaned and dried before loading.
- Other (please specify):

**Level 4:** As per Level 3 and, either birds are carried upright and one-at-a-time or a catching machine is used. Manager has written records of animal transportation, including dates, numbers of animals transported and weather conditions. All the following apply:

- Crates are cleaned, disinfected and dried between each load of birds.<sup>18</sup>
- Records show that less than 10 hours elapse between the beginning of loading and the completion of unloading. Evidence explaining the duration of transit time must be provided (e.g., distance to Food Alliance certified slaughter facilities). The length of time birds are confined for transport must be reduced as far as humanely and responsibly possible.
- Records are kept documenting mortality during transport.
- Records show a less than 1% DOA rate.
- Other (please specify):

**Score:**

**Verification methods and notes:**

## On-farm Casualty Euthanasia

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**Level 1:** All legal requirements for on-farm casualty animal euthanasia and disposal are met.

All the following apply:

- Animals are rendered insensible to pain before being shackled, hoisted, thrown, cast away, or cut.
- Insensibility must come from a single knife stroke, or an electrical, chemical or other means that is rapid and effective.
- Non-ambulatory animals are never dragged to the killing area.
- Non-ambulatory, dying, diseased and disabled animals are euthanized promptly. While awaiting euthanasia, animals are provided shelter, food and water.
- Manager can explain how operation meets those requirements.
- Other (please specify):

**Level 2:** As per Level 1, and handler can discuss assessment of insensibility to ensure animals are in fact rendered insensible during on-farm euthanasia. Handler discusses methods of testing for insensibility.

**Level 3:** As per Level 2, and handler can discuss guidelines for deciding when a casualty animal should be treated vs. euthanized. All the following apply:

- Handler can explain decision-making guidelines regarding casualty animals, including examples of how the guidelines are followed.
- Non-ambulatory, dying, diseased and disabled animals are separated from healthy animals, and provided with a stress-free pen sufficient to protect them from temperature and other stresses while awaiting disposition.<sup>19</sup>
- Other (please specify):

**Level 4:** As per Level 3, and careful records are kept of casualty euthanasia incidents and causes, and effective corrective measures are put in place to minimize reoccurrence. All the following apply:

- Records of casualty euthanasia including cause, procedures and disposition of carcass are legible and complete.
- Handler can report corrective actions taken.
- Animal casualty rate due to disease and injury is very low or non-existent. Predator losses are minimized through appropriate management such as guard animals, good fences, careful herding, etc. Manager can discuss how predator losses have been minimized and controlled.
- Other (please specify):

**Score:**

**Verification methods and notes:**

## Waste Management

### Manure Management

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**Level 1:** All legal requirements are met for collection, storage, treatment and application of manure/litter. All the following apply:



- Manager is aware of legal requirements.
- Manager can explain how the operation meets those requirements.

**Level 2:** As per Level 1, and used litter is managed to minimize risks to surface and ground water, and animal health. All the following apply:

- Excess fecal material is not allowed to build up in the housing facility.
- If birds have outdoor access, fecal material is not allowed to build up in the outdoor area.
- Used litter from the operation is not present on roads around the farm.
- Storage capacity for used litter is adequate to contain all litter removed from the housing facilities when land application is not appropriate (e.g., frozen or saturated soils).
- Manure is not spread within 50 ft. of surface water, or within 100 ft. of streams or wells used for domestic water supplies (or farther if required by law).
- Manager can describe nutrient management on the operation, including the generation, collection, treatment, storage and agronomical use of all used litter, and can describe how the operation's nutrient management takes into account inputs of major crop nutrients (N, P, K) from water, soil amendments, nitrogen-fixing crops, existing soil and plant.
- Nutrient management also includes measures for preventing erosion and water pollution resulting from areas associated with outside production, where applicable.
- Other (please specify):

**Level 3:** As per Level 2, and all the following apply:

- Records are kept documenting the amount of manure exported and the name and address of any individuals receiving the litter.
- Soil and litter testing is conducted annually on the farm, with all fields being tested within a three-year period.
- Manure nutrients from outdoor access are accounted for in nutrient budgeting.
- Nuisance-level manure odors are not detectable in neighboring off-farm locations where people are present.
- A written Nutrient Management Plan documents the generation, collection, treatment, storage and agronomical use of all used litter and includes a mass nutrient balance for the major crop nutrients (N, P and K) that takes into account inputs from water, soil amendments, nitrogen-fixing crops, existing soil and plant tissue. The plan documents need based on soil or manure testing, cropping history and state agency/Extension recommended nutrient application rates.
- Other (please specify):

**Level 4:** As per Level 3, and all the following apply:

- Pasture is rotated to prevent de-foliage of the area and build up of manure.
- All used litter is composted.
- Records of crop yields are used to monitor and adapt nutrient management plan.
- Exhaust fans, if present, direct discharge away from sensitive areas.
- Surface water monitoring is conducted to test bacterial contamination.
- Poultry production integrated into a diversified farming system.<sup>20</sup>
- Other (please specify):

**Score:**

**Verification methods and notes:**

## **Manure Storage**

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**Level 1:** Litter storage is greater than 100 ft from surface water (or farther if required by law/local ordinance) and not in areas subject to flooding. Storage is adequate to contain manure production when application is not appropriate.

**Level 2:** As per Level 1, and at least two of the following apply:

- Some portion of the farm's stored litter is composted.
- All used litter is stored with a significant buffer from surface waters.
- All used litter and compost is stored on an impermeable surface.
- Compost is mixed and a proper blend of Carbon and Nitrogen sources is available for microbial action.
- Storage is designed so that runoff from the storage site is contained and utilized.
- In high-rainfall areas, a roof is used to prevent runoff from the litter storage area and over saturation of composting manure.
- Animal mortalities are composted separately from the bulk of the manure and the resulting compost is also stored and handled separately.
- Manure is stored downwind of sensitive areas.
- Other (please specify):

**Level 3:** At least four practices from Level 2 apply. Storage structures are monitored and inspected annually, and maintenance action taken to repair cracks and other faults that may lead to contamination of ground or surface water.

**Level 4:** As per Level 3, and all the farm's used litter is composted. Composting material is mixed, turned and monitored to a high standard including temperature and airflow. Clear separation exists between piles of raw materials, working compost and finished compost. No raw manure leaves the farm without composting.

**Score:**

**Verification methods and notes:**

## Hazard Reduction and Sanitation

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**Level 1:** All legal requirements are met for food safety and biosecurity, including hygiene, sanitation, and fuel, pesticide and medicine storage. Access to facilities and livestock is restricted. All the following apply:

- Manager is aware of legal requirements.
- Manager can explain how the operation meets those requirements.
- Other (please specify):

**Level 2:** As per Level 1, and a policy addressing procedures, materials for cleaning and disinfecting facilities and equipment, personal protective gear, and limiting risks from contamination and disease is in place. All the following apply:

- Signage listing procedures and precautions is present when appropriate, e.g., fuel, pesticide, medicine storages, toilet facilities, feed stores.
- Cleaning and disinfecting products are used properly, i.e., anti-microbial disinfectants are not used where cleaning products are appropriate.
- Handlers use clean and appropriate personal protective gear (such as gloves, hairnets, boots, etc.).
- Any dead birds are removed from facilities daily, and rendered, composted, incinerated or otherwise dealt with according to local rules and regulations.
- Other (please specify):

**Level 3:** As per Level 2, and access to facilities, equipment, medicine, fuel and pesticide stores is limited to authorized. All the following apply:

- Operation has a written biosecurity plan.
- Medicine, pesticide, and fuel storage is locked.
- Entrances to farm and facilities are appropriately marked and secured to discourage/prevent unauthorized entry and/or movement of disease or contaminants into sensitive areas.
- Pesticide, medicine, and/or fuel use is tracked in such a way as to ensure the detection of unauthorized use or spillage.
- Pesticide and medicine storage facilities appropriate to the products stored. Refrigeration is available for medicines. Storage areas for pesticides and medicines are cool and dry.

Empty containers are rinsed and disposed of appropriately.

- Needles are securely locked away, and old needles are disposed of appropriately.
- Manager can describe how contact between flock and possible carriers of disease (e.g., game birds and migratory waterfowl) is prevented.
- Other (please specify):

**Level 4:** As per Level 3, and on-farm storage of hazardous materials is minimal. All the following apply:

- Animal health and preventative pest management, and/or the use of alternative therapies such as homeopathy is adequate such that very little medicine or pesticide is present on farm.

- Pesticide and medicine storage is checked regularly. Out of date stock or unviable stock quantities are disposed of properly.
- Gates, fencing and signage are placed to disallow entry by unauthorized persons or vehicles. Parking areas for visitors are clearly labeled and distant from bird areas. Trucks that must enter and leave the farm have their wheels and undercarriage disinfected before entry and exit.
- Other (please specify):

**Score:**

**Verification methods and notes:**

## **Pest Management**

### **Rodents**

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**Level 1:** Basic requirements are met to reduce access to bird confinement areas, food and water by rodents. Rodent control is ongoing, whether or not rodent populations are at a high level. All the following apply:

- Manager can explain how operation reduces problems with rodents.
- Any rodenticides used are stored and used according to label directions and restrictions.
- Other (please specify):

**Level 2:** As per Level 1 and a rodent monitoring program is in place. Rodenticides are used only when rodents are over acceptable levels. All the following apply:

- Manager can explain how operation monitors rodents and uses monitoring information to make management decisions.
- Pesticides labeled Danger are not used to manage rodents.
- Other (please specify):

**Level 3:** As per Level 2, and primarily non-chemical strategies are used to manage rodents. If rodenticides are used, bait stations are employed to reduce the use of broadcast rodenticides. If anticoagulants are used, first generation/multiple dose anticoagulants are given preference over second generation/single dose anticoagulants until and unless first generation/multiple dose anticoagulants are proven ineffective. Producer must substantiate claims that first generation/multiple dose anticoagulants have proven ineffective. At least three of the following apply:

- Manager knows problem rodent species, species-specific behaviors and non-chemical management strategies.
- Rodent access to food and water supplies are limited by non-chemical strategies, including exclusion, trapping, etc.
- If rodent traps or poison baits are used, they are enclosed in a tamper-proof station to prevent access by non-target animals.
- Pesticides labeled Warning are not used to manage rodents.
- Other (please specify):

**Level 4:** As per Level 3, and rodents are suppressed by traps and barriers, which may include mow strips or graveled barrier strips around buildings. Sanitation, exclusion and cultural and biological controls are effective in preventing rodent problems without use of rodenticides.<sup>21</sup>

**Score:**

**Verification methods and notes:**

## Flies

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**Level 1:** Fly control occurs on an ongoing, regularly scheduled basis. All the following apply:

- Manager can explain how operation reduces problems with flies.
- Any pesticides used are stored and used according to label directions and restrictions.
- Other (please specify):

**Level 2:** As per Level 1, but thresholds for treatment are established. A program is in place to monitor fly populations and respond to fly problems when necessary. Fly control appears adequate. All the following apply:

- Manager can explain how operation monitors flies and uses monitoring information to make management decisions .
- Operation uses trapping, fly counts, fly complaints or other indicator to make management decisions.
- Pesticides are used only when monitoring indicates need.
- Pesticides labeled Danger are not used to manage flies.
- Records are kept documenting complaints about fly problems and response.
- Complaints from neighbors and workers about fly problems are infrequent.
- Other (please specify):

**Level 3:** As per Level 2, and some non-chemical strategies are used to manage flies. Insecticide use is reduced by employing litter management practices.<sup>22</sup> At least four of the following apply:

- Fly populations are reduced with sticky and/or electrical traps.
- Screens are used to exclude flies from confinement/feeding areas.
- Manure and litter use, storage and disposal are managed to reduce fly breeding sites.
- Complaints from neighbors and workers about fly problems are rare.
- Pesticides labeled Warning are not used to manage flies.
- Other (please specify):

**Level 4:** As per Level 3, and fly control is managed without chemical poisons or pesticides. All the following apply:

- Sanitation, exclusion and cultural and biological controls are effective in preventing fly problems without chemical pesticides.<sup>23</sup>
- Complaints from neighbors and workers about fly problems do not occur.
- Other (please specify):

**Score:**

**Verification methods and notes:**

## External Parasites

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**Level 1:** External parasites are treated for on a regular schedule whether or not identification of an infestation has been made. This includes common continuous external parasites (i.e., sticktight fleas, chicken lice, scaly leg mites, and northern fowl mites) and common intermittent external parasites (i.e., fowl ticks, bed bugs, and chicken or red mites).

**Level 2:** External parasites are identified and treated with methods targeted at specific pests. Insecticides are properly selected and used only when the target pest is over acceptable levels. Manager can demonstrate an understanding of pest lifecycles and how to break them, so as to apply insecticides/treatments only when necessary.

**Level 3:** As per Level 2, and potential problems from external parasites are reduced through the provision of dust-bathing facilities, cleaning of indoor areas and management of outdoor areas.

**Level 4:** As per Level 3, and sources of infestations are identified and where possible eliminated. Records are kept documenting sources of infestations and techniques used to eliminate those sources. Uncommon external parasites are checked for routinely. Naturally insecticidal plants and herbs not poisonous to birds may be planted in and around bird pens to aid in the exclusion of parasites. Birds that carry external parasites are separated from other flock members, and are re-introduced to the flock only after parasites are no longer a problem.

**Score:**

**Verification methods and notes:**

## Internal Parasites

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**Level 1:** Internal parasites are treated for on a regular schedule whether or not identification of an infestation has been made.

**Level 2:** Treatments for internal parasites are made only as needed. Manager can demonstrate an understanding of internal parasite lifecycles and how to break them, so as to apply treatments only when necessary.

**Level 3:** As per Level 2, and natural methods are used before synthetic chemicals to prevent parasites. Records are kept, including documentation of levels of success using natural methods.

**Level 4:** As per Level 3, and parasites are controlled using preventative measures, cultural controls, and nutritional controls. Outdoor area is managed to reduce exposure to parasites and intermediate hosts. Where beneficial, fecal tests are used to monitor parasites and to develop an effective control program. Sources of infestations are identified and where possible eliminated. Records are kept documenting sources of infestations and techniques used to eliminate those sources.. Uncommon internal parasites are checked for routinely.

**Score:**

**Verification methods and notes:**

**Scorecard**

<b>CRITERIA</b>	<b>SCORE/LEVEL</b>
<b>Healthy and Humane Care for Livestock: Living Conditions</b>	
Meat Production: Chicken and Turkey	
Egg Production: Pullets	
Egg Production: Layers	
(for combined Meat & Egg Production, use both criteria and add scores)	
<b>(1) TOTAL POINTS EARNED =</b>	
<b>Total Points Available</b>	<b>4 (8 for combined production system)</b>
<b>- Minus Total Points Not Applicable</b>	
<b>(2) TOTAL APPLICABLE POINTS=</b>	
<b>(3) AVERAGE SCORE=</b>	

<b>CRITERIA</b>	<b>SCORE/LEVEL</b>
<b>Healthy and Humane Care for Livestock: Other</b>	
Animal Health	
Animal Feed and Nutrition	
On-Farm Handling and Transportation	
On-farm Casualty Slaughter	
<b>(1) TOTAL POINTS EARNED =</b>	
<b>Total Points Available</b>	<b>16</b>
<b>- Minus Total Points Not Applicable</b>	
<b>(2) TOTAL APPLICABLE POINTS=</b>	
<b>(3) AVERAGE SCORE=</b>	

<b>CRITERIA</b>	<b>SCORE/LEVEL</b>
<b>Waste Management</b>	
Manure Management	
Manure Storage	
Hazard Reduction and Sanitation	
<b>(1) TOTAL POINTS EARNED =</b>	
<b>Total Points Available</b>	<b>12</b>
<b>- Minus Total Points Not Applicable</b>	
<b>(2) TOTAL APPLICABLE POINTS=</b>	
<b>(3) AVERAGE SCORE=</b>	

<b>CRITERIA</b>	<b>SCORE/LEVEL</b>
<b>Pest Management</b>	
Rodents	
Flies	
External Parasites	
Internal Parasites	
<b>(1) TOTAL POINTS EARNED =</b>	
<b>Total Points Available</b>	<b>16</b>
<b>- Minus Total Points Not Applicable</b>	
<b>(2) TOTAL APPLICABLE POINTS=</b>	
<b>(3) AVERAGE SCORE=</b>	



## **Acknowledgements**

The evaluation criteria included in this inspection tool were developed using information from many sources, including\*:

*Turkey Care Practices* (University of California-Davis)  
[http://www.vetmed.ucdavis.edu/vetext/INF-PO\\_TurkeyCarePrax.pdf](http://www.vetmed.ucdavis.edu/vetext/INF-PO_TurkeyCarePrax.pdf)

*Broiler Care Practices* (University of California-Davis)  
[http://www.vetmed.ucdavis.edu/vetext/INF-PO\\_BroilerCarePrax.pdf](http://www.vetmed.ucdavis.edu/vetext/INF-PO_BroilerCarePrax.pdf)

*Egg-Type Layer Flock Care Practices* (University of California-Davis)  
[http://www.vetmed.ucdavis.edu/vetext/INF-PO\\_EggCarePrax.pdf](http://www.vetmed.ucdavis.edu/vetext/INF-PO_EggCarePrax.pdf)

*Common Continuous External Parasites of Poultry* (University of Florida)  
<http://edis.ifas.ufl.edu/pdffiles/ps/ps00900.pdf>

*Common Intermittent External Parasites of Poultry* (University of Florida)  
<http://edis.ifas.ufl.edu/pdffiles/PS/PS03600.PDF>

*Space Requirements for Poultry*, Complied for the Livestock Working Group for the Canadian Organic Standards Board by IJH Duncan and AE Malleau, 2008.

\*Not all practices from these sources were incorporated into the final draft of this evaluation criteria, so acknowledgement of their use does not constitute an endorsement of this criteria.

These evaluation criteria were developed in collaboration with Dr. Jacquie Jacob, Poultry Extension Associate, Department of Animal and Food Sciences, University of Kentucky, [jacquie.jacob@uky.edu](mailto:jacquie.jacob@uky.edu).

The following individuals reviewed and provided comment on the evaluation criteria\*\*:

1. Andrew Carlson, Central Coast Fryer Farms, Inc.
2. Andrew Wilcox, Egg Operations, Wilcox Farms, Inc.
3. Anne Fanatico, MS, Program Specialist, ATTRA, National Center for Appropriate Technology;
4. Dr. Brigid McCrea, Poultry Specialist, Assistant Professor, Agriculture and Natural Resources Department, Delaware State University, [bmccrea@desu.edu](mailto:bmccrea@desu.edu);
5. Dr. David Wallinga, MPA, Director of the Food and Health Program, Institute for Agriculture and Trade Policy; and
6. Steven Roach, MA, Public Health Program Director, Food Animal Concerns Trust.

\*\*Not all reviewer comments and suggestions were incorporated in the final draft of this evaluation criteria, so recognition of their contribution does not constitute an endorsement.

## Endnotes

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- <sup>i</sup> Food Alliance uses the definition of nontherapeutic developed by the Pew Commission on Industrial Farm Animal Production: “The PCIFAP defines *nontherapeutic* as any use of antimicrobials in food animals in the absence of clinical disease or known (documented) disease exposure; i.e., any use of the drug as a food or water additive for growth promotion, feed efficiency, weight gain, disease prevention in the absence of documented exposure or any other “routine” use as nontherapeutic.”
- <sup>2</sup> Ammonia concentrations are measured at bird height.
- <sup>3</sup> Ammonia concentrations are measured at bird height.
- <sup>4</sup> Chickens stop learning after about 16 weeks of age, so they must be exposed to an outdoor area before that so they can learn where the food and water is located.
- <sup>5</sup> Ammonia concentrations are measured at bird height.
- <sup>6</sup> Acceptable, aviary/multi-tier systems have feeders and drinkers on overhead platforms or perches. Examples include, but are not limited to, Big Dutchman Natura 60 or Natura Rearing Aviary System, and Jenson Poultry Equipment Intensive Aviary System.
- <sup>7</sup> Acceptable, aviary/multi-tier systems have feeders and drinkers on overhead platforms or perches. Examples include, but are not limited to, Big Dutchman Natura 60 or Natura Rearing Aviary System, and Jenson Poultry Equipment Intensive Aviary System.
- <sup>8</sup> Acceptable, aviary/multi-tier systems have feeders and drinkers on overhead platforms or perches. Examples include, but are not limited to, Big Dutchman Natura 60 or Natura Rearing Aviary System, and Jenson Poultry Equipment Intensive Aviary System.
- <sup>9</sup> NPIP = National Poultry Improvement Plan.
- <sup>10</sup> See AVMA Guidelines on Euthanasia ([http://www.avma.org/issues/animal\\_welfare/euthanasia.pdf](http://www.avma.org/issues/animal_welfare/euthanasia.pdf))
- <sup>11</sup> Meat production – there is a movement towards slower growing breeds of chickens and turkeys. For turkeys this mainly includes heritage breeds. For egg production, alternate breeds are being considered. The majority of farm based egg production in the US take places in battery cage systems and the breeding goals of few remaining breeding companies is the selection of hens that are able to produce high numbers of eggs in cages. These cage-adapted hens are not suitable for systems with outdoor housing. In addition, cage-adapted hens are not good at nesting so floor eggs can be a problem with such breeds.
- <sup>12</sup> Coccidiosis is seen as the number one health problem in poultry housed in a non-cage system.
- <sup>13</sup> Feather pecking and cannibalism is identified as a significant potential problem in free-range systems.
- <sup>14</sup> Feather pecking and cannibalism is identified as a significant potential problem in free-range systems.
- <sup>15</sup> Excessive competition is not evident among feeding/watering birds.
- <sup>16</sup> Intended to prevent loss of nutrients resulting from nutrient breakdown.
- <sup>17</sup> Feed ingredients and nutrient content must be supported by documentation from feed manufacturer.
- <sup>18</sup> Old wooden crates with cracks are hard to clean and should not be used. If wooden crates are used, they should be painted and cracks should be sealed so as to create a smooth surface for cleaning and disinfection.
- <sup>19</sup> A “covered” pen may not be a reasonable facility in some types of weather conditions. Cover may increase discomfort by isolating animals in the dark.

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- <sup>20</sup> The choice between mobile and static housing will depend on scale of production, but mobile housing offers greater opportunities for the integration of poultry into a diversified farming system.
- <sup>21</sup> Cats may be used for rodent control. However, since cats can carry salmonella, they must be kept away from direct contact with the feed supply and the birds.
- <sup>22</sup> Dry manure reduces the incidence of flies.
- <sup>23</sup> Fly parasites are not an effective control measure in properly managed litter systems. They are used more in commercial deep pit layer houses – which is not the case here since cages are not allowed.