

# Guidelines for Cage Housing



**United Egg  
Producers**

*Leadership by Egg Farmers for Egg Farmers*

**Animal Husbandry  
Guidelines for U.S.  
Egg-Laying Flocks**

**2017 Edition**

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## The U.S. Egg Industry

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As late as the 1940s, small backyard flocks of chickens made up the majority of the egg-producing industry. After these chickens had laid a relatively small number of eggs, they were consumed for meat. Then hens entered into a natural molt during the winter months and stopped producing eggs. Consumers wanting to purchase eggs during the winter months had to receive them from cold storage, which quite often meant nothing more than simply the producer's basement. The eggs could be several weeks old by the time the consumer actually received them.

Backyard chickens, continuously subjected to diseases, freezing, predators, poisoning and infighting, had a precarious existence and a normal mortality rate as high as 40% per year. Average yearly egg production was little more than 100 eggs per year, of which many were contaminated by the microbes from poultry diseases.

With the migration of families from the farm to urban areas, egg farming needed to change, like all of animal agriculture. Modern egg farming was born in response to this demand.

To meet a changing market, farmers needed to upgrade their production facilities while keeping in mind the health and welfare of their birds. They also recognized the need to deliver eggs to the market in the most economical and quickest manner possible. The modern cage system was found to be a system that could meet both requirements in a commercial market.

The modern cage system has eliminated most diseases of the 1940s, provided the hens with protection against the weather (environmental controlled housing) and predators, while also improving food safety, the environment (air and water) and animal welfare. The first widespread acceptance of the cage system began in the mid-to-late 1940s. Trade journals and books in the 1950s reported that the cage became popular to improve sanitation practices. Housing hens in cages removed the bird from exposure to its own feces and eliminated many feces-related parasite and health problems. The journals continued to say that as a result of caging, flock nutrition could be better managed, wastes could be handled more effectively, and eggs could be kept cleaner and safer for the consumer.

With fewer farmers to produce eggs and a growing demand, egg farmers needed to find ways to manage more birds in the most efficient manner, while using fewer land resources. To a large degree, modern poultry housing and husbandry practices were researched by land grant colleges and universities and have been adopted by the farmers. This research is forever ongoing, and egg farmers continue to make changes as credible scientific research provides more answers.

Today, we would estimate that 85% of the commercial egg production in the U.S. and an estimated 90% of the world's egg production are derived from caged layers.



Alternative systems of egg production continue to develop. In the U.S. approximately 15% of eggs come from cage-free or organic production systems. Cage-free systems vary and include barn-raised and free-range raised hens. Cage-free eggs are niche marketed and provide consumers an alternative choice.

Many egg farmers produce both cage and cage-free eggs. A new egg production system is emerging. This is an “enriched colony housing system” that combines many of the advantages of both the cage and cage-free systems. Currently UEP is reviewing these enriched colony systems and developing welfare recommendations for possible use in the U.S. Fully enriched colonies provide hens with many enhancements to express behaviors normally exhibited in the wild, like perching, scratching and foraging areas, as well as secluded nesting areas to lay eggs in private.

Agriculture is not alone in trying to find ways to meet market demand. In fact, the major cause of egg farming being consolidated into fewer but larger farms was the consolidation of retail grocery and restaurant chains. The few remaining small family farms could no longer produce and provide the quantity and quality of product that the retail market now demanded with the required rapid delivery at the lowest price possible. In order to meet this new market, egg farmers needed to grow to the size and scale required by their customers. Today, there are less than 150 commercial egg farmers with flocks of 75,000 hens or more. These farmers care for more than 95% of the approximate 310 million laying hens in the United States.

Modern egg farms operating in a free market system with no government assistance programs require large capital investments. While these farms have grown to meet the market demand, they are still classified as “Family Farms” with the owner still being on the farm making day-to-day decisions.

## UEP’s Mission

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United Egg Producers (UEP) developed the first industry guidelines in the early 1980s. Recognizing the growing concern for animal welfare worldwide, UEP commissioned an independent Scientific Advisory Committee for Animal Welfare in 1999. This committee was asked to review the scientific literature on specific topics relevant to the well-being of laying hens and to identify areas where further research was needed. Additionally, the committee was asked to develop recommendations based upon existing science for presentation to the UEP Producer Committee for Animal Welfare, Board of Directors and ultimately to the industry. The Scientific Advisory Committee took no responsibility for mandating these recommendations, recognizing that producers must voluntarily accept and implement them. This historic step led to the development of a responsible working model for development and implementation of science-based guidelines to improve the welfare of laying hens managed in caged and cage-free production systems.



UEP's mission was to establish animal husbandry guidelines, based upon science, which can be implemented voluntarily by all egg producers regardless of the system of egg production. The recommendations and guidelines found within this document have been accepted and presented by the UEP Producer Committee using the recommendations from the Scientific Advisory Committee as a blueprint.

This document will provide recommendations for best management practices for caged and cage-free egg production. This is a living document subject to changes as new scientific information becomes available.

## Animal Welfare

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Egg farmers sincerely care about the welfare of their chickens and completely understand that poor husbandry practices will result in higher mortality and fewer eggs.

With fewer people having an understanding or relationship with farming and a growing public discussion about the well being of laying hens, United Egg Producers (UEP) began to question whether there was a need for an independent review of our industry production practices.

To achieve an independent assessment of U.S. egg farming, UEP established a mission, which included: (1) A scientific approach to animal welfare guidelines; (2) guidelines that are driven by the industry rather than government mandates or legislation; (3) guidelines that created a level playing field for both egg farmers and our customers.

The process for this review began with a meeting with Dr. Jeffrey Armstrong (then Dean of Agriculture and Natural Resources at Michigan State University), asking if he would be interested in forming his own scientific committee of which he could select all the members without pay. In 1999, Dr. Armstrong assembled his committee comprised of government officials, academicians, scientists and humane association executives. While in following years there have been a few changes in the makeup of the committee, they have remained engaged and continue providing UEP with recommendations.

The committee reviewed all available peer-reviewed scientific literature and visited egg farms, breeder companies and equipment manufacturers. They considered all egg production systems (cage and non-cage). Since approximately 95% of U.S. egg-production was in conventional cage systems, the logical starting point was the development of recommendations to ensure welfare guidelines for cage production.

In the fall of 2000, Dr. Armstrong's committee presented their recommendations for major and costly animal husbandry changes. UEP's Board of Directors approved the recommendations and



embarked upon a plan to put those guidelines into an industry program that could voluntarily be implemented by egg farmers.

Recognizing the need to have support from customers, UEP presented the science-based guidelines to the Food Marketing Institute (association of retail grocers) and the National Council of Chain Restaurants (association of fast food restaurants) and received their endorsement.

UEP launched the UEP Certified program in April 2002.

Today, more than 85% of all eggs produced in the United States are produced under the UEP Certified guidelines. Any egg farmer desiring to be recognized and market eggs as UEP Certified must implement the scientific guidelines on 100% of their flocks. An auditing program was established to assure each farmer's compliance with the guidelines.

USDA's Agricultural Marketing Service (AMS-Poultry Programs) and Validus Services conduct the audits based upon procedures written by them.

The UEP Certified program is now recognized as a leader among all of animal agriculture world-wide in the establishment of science-based guidelines. The International Egg Commission (an organization of most every major egg producing country in the world) has endorsed the UEP guidelines as the model for creation of guidelines for egg-laying hens.

## Independent Scientific Advisory Committee

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The independent committee was comprised of government officials, academicians, scientists and humane association members, with all having been selected by the Chairman of the Committee. The Scientific Advisory Committee meets on a regular basis to review the science and make recommendations to the UEP Producer Committee.

When this effort started in 1999, approximately 95% of U.S. egg production was from hens kept in cages, the logical starting point for the Scientific Advisory Committee was the development of recommendations to ensure caged production was humane. The recommendations and guidelines within UEP's first Animal Husbandry Guidelines published in October 2000, were based upon those recommendations made by the Scientific Advisory Committee. A goal was also set to eventually publish guidelines to cover cage-free egg production.

In 2006, the Scientific Committee was requested by UEP to undertake the assembly of recommendations for the production and management of hens housed under cage-free conditions. The recommendations would be combined with those for cage egg production to comprise a comprehensive guideline for egg producers. The guidelines presented in this publication represent



the recommendations of the Scientific Advisory Committee for best husbandry practices to assure the welfare of hens managed under cage and cage-free conditions.

Current Scientific Advisory Committee Members:

- Dr. Joy Mench, Ph.D. (Chair) – University of California/Davis
- Dr. Janice C. Swanson, Ph.D. (Vice-Chair)– Michigan State University
- Dr. Cia Johnson, MS, DVM – American Veterinary Medical Association
- Dr. Suzanne T. Millman (Hartline), Ph.D. – Iowa State University
- Dr. Ruth C. Newberry, Ph.D. – Norwegian University of Life Sciences
- Dr. Paul B. Thompson, Ph.D. – Michigan State University
- Dr. Tina M. Widowski, Ph.D. – University of Guelph
- Dr. Don Conner, Ph.D. – Auburn University (Food Safety Liaison)
- Dr. Hongwei Xin, Ph.D. – Iowa State University (Environmental Liaison)

## A Visual Presentation of Guidelines

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UEP considers employee training as a vital part of assuring the welfare of laying hens and this training is an important component of the audit process. Therefore, a visual presentation, both in English and Spanish, of these guidelines is provided to all UEP Certified companies for the training of employees to assure personnel involved in bird care are properly trained and qualified to perform their jobs. Training video updates will be made periodically as the needs dictate.

## United Egg Producers Certified Compliance

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### Certification

A company desiring to be recognized as “United Egg Producers Certified” must file an “Application for Certification,” successfully pass an audit and pay the annual administrative and public relation fees. Upon completion of a successful audit, the company will be fully certified and UEP will issue an annual Certificate. To maintain this certification, the company must continue to meet all guidelines and pass future annual audits.

### Audit

To assure compliance with the Animal Husbandry Guidelines, each UEP Certified company will be audited each calendar year by independent auditors (USDA/AMS or Validus), designated and approved by UEP. Audit guidelines, audit score sheet and a point scoring system have been developed by the auditors and will be used for all compliance audits, thereby assuring consistency for all participants. The auditing firms will provide the company with seven (7) days advanced

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notice of when the audit will be conducted. Results of the audit will be provided directly to UEP and the UEP Certified company. Copies of the audits may not be shared by UEP with anyone else without written approval by the UEP Certified company.

Currently, audits require 180 points of a 200 total for a passing score. Failure to meet the space allowance guidelines, evidence of backfilling cages, commingling Certified and non-certified eggs or the use of a feed withdrawal molt will be cause for failure of the audit - regardless of the total points achieved.

A company failing the audit will have 30 days for corrective actions followed by a re-audit. The company will be required to call the auditor to schedule the re-audit at their expense. Re-audits will focus only on the areas where points were lost in the initial or prior audits. Failure to pass the re-audit will result in the formation of a committee composed of a UEP staff member and two other appropriate non producers which will determine the company's UEP Certified status.

## United Egg Producers Certified Logo

To identify eggs in the marketplace as having been produced by UEP Certified companies, a logo has been developed and made available for use on egg packaging.

A certified company may use the United Egg Producers Certified logo only on those eggs or egg products produced by UEP Certified companies. The company may authorize the use of the logo by their retail customer only for those eggs produced from UEP Certified companies.

All egg packaging displaying the United Egg Producers Certified logo must display the [www.uepcertified.com](http://www.uepcertified.com) website and the tag line "Produced in Compliance with the United Egg Producers' Animal Husbandry Guidelines" on the package. All must be printed in close proximity to the logo. For example, directly below, above or to either side of the logo.

## Marketing of United Egg Producers Certified Eggs

Only UEP Certified companies (or non-certified marketers that have signed a license agreement) and are meeting the requirements of those agreements are authorized to sell "United Egg Producers Certified" eggs or egg products.

No one owning egg production flocks may market eggs as "UEP Certified" unless they are a UEP Certified company. This policy also applies to egg producers that may purchase eggs from UEP Certified companies.

A "License Agreement" is available for companies that do not own layers in company-owned, contract farms or affiliate facilities, as well as for companies having made a commitment to meet the 100% rule while implementing the cage space requirements of UEP's hatch schedule. An annual audit will be conducted of companies using the "License Agreement."



## Returning to the UEP Certified Program

Any company that was once UEP Certified and has dropped off the program may return by meeting UEP's hatch schedule for repopulating houses or may depopulate houses to meet the required cage space allowance, meet all other guidelines, have an audit and pay required program fees.

## Additional Requirements for UEP Certified Companies

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UEP's Board of Directors has established additional requirements for companies that have filed applications to be recognized as a UEP Certified company.

1. A UEP Certified company must implement the animal husbandry guidelines on 100% of the company-owned, contract or affiliate facilities (site or location) regardless of where or how eggs may be marketed. The term "affiliate" for this purpose will mean that the affiliate must be subject to the control of the party with which it is affiliated, typically as a result of interlocking or related ownership or corporate control. For example, two corporations that are owned by the same group of shareholders – even if the corporations are not in a parent-subsidiary relationship – would be affiliates. Business entities that share only a contractual relationship (vendor and customer, for example) would not be within the meaning of the term affiliate as it is commonly understood. Supplier-customer relationships would not be affiliates for the purpose of the 100% rule.
2. Effective June 1, 2006, any new company wanting to become a UEP Certified company will have two options for entering the program.
  - a. The company may depopulate all existing houses to the required cage space allowance, meet all other program requirements, pass an audit and then be immediately recognized as a UEP Certified company.
    - i. (Or)
  - b. The company may repopulate houses based upon the UEP hatch schedule and meet all other program requirements. Eggs may not be marketed as "UEP Certified" until the company has met the 100% rule for all company-owned, contract and affiliate facilities. During this transition, a Non-Certified License Agreement will be authorized for the marketing of "UEP Certified" eggs purchased from other UEP Certified companies.
3. A certified company must file Quarterly Compliance Reports with UEP.
4. A certified company or any marketer may not commingle and sell as certified any eggs or egg products purchased from a non-certified producer.
5. A certified company or any certified marketer may not pack eggs from cage production into packages marketed as cage-free or organic.
6. Every UEP Certified company, as well as those making an application for the repopulation hatch schedule, must pay the annual administrative and public relation fees as established by the UEP Board of Directors.





## Timeline for Implementation

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The guidelines for beak trimming, molting, handling and transpiration were implemented July 1, 2002.

## Beak Trimming and Treatment

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Bird behavior, production and physiological measurements of stress, as well as neural transmission and anatomy of the beak, have been used as criteria to determine if beak trimming/treatment compromises animal well-being. In addition, the welfare of those birds that are pecked by beak-intact birds has been evaluated. Advantages of beak trimming/treatment may include reduced pecking, reduced feather pulling, reduced cannibalism, better feather condition, less fearfulness, less nervousness, less chronic stress and decreased mortality. Welfare disadvantages may include reduced ability to feed following beak trimming/treatment, short-term pain, perhaps chronic pain and acute stress.

Scientific evidence suggests that primary breeders of egg-laying birds can select a more docile bird and minimize the need to beak trim from a behavioral point of view. Under certain management systems (e.g., exposure to high intensity natural lighting) and with some genetic stocks, beak trimming/treatment may be required. Whenever possible, genetic stock should be used that require little or no beak trimming/treatment. UEP recommends beak trimming/treatment only when necessary to prevent feather pecking and cannibalism and only when carried out by properly trained personnel monitored regularly for quality control.

There are two acceptable practices for treating beaks: day-old infrared beak treatment at the hatchery and beak trimming at 10 days old or younger. When beak treatment is used, the equipment manufacturer recommendations should be followed and the UEP Certified company should receive a Certificate of Conformance (COC) from the hatchery. Also, when contract services are used for on-farm beak trimming, a Certificate of Conformance is required from the contractor.

### Guidelines for Beak Trimming and Treatment

- 1. Birds whose beaks were recently trimmed may have difficulty activating watering devices; therefore, caretakers should take actions that will facilitate the bird's ability to drink. Examples include lowering water pressure or manually triggering cup waters for several days following trimming.*
- 2. To minimize weight loss, birds should be fed a prestarter, starter or high-density stress diet for about 1 week following beak trimming.*
- 3. If a trimmed beak grows back, a second trim may be needed when pullets are 5 to 8 weeks old. A second trimming is more permanent in that the beak does not grow back as easily. A preventive second trim is not recommended after birds are 8 weeks old. However, therapeutic beak trimming may be performed at any age if an outbreak of cannibalism occurs.*
- 4. When avoidable, birds should not be subjected to stressful conditions (e.g., handling, moving and vaccination) for two weeks following beak trimming.*
- 5. After beak trimming, the levels of feed and water should be increased until beaks are healed.*

# Molting

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Molting is a normal process of chickens and other feathered species. In the wild state, birds usually shed and renew old, worn plumage in preparation for cold weather and their migratory flights. Chickens kept for commercial egg production have a different molting pattern. They have been bred for high performance, and their environment, with respect to temperature and light, is usually modified to remove major seasonal influences.

In commercial egg production, an induced molt provides a way to extend the life of the hen and rejuvenate the reproductive cycle of the hen. The practice of inducing a molt allows the farmer to bring all hens into a molt at the same time rather than waiting for a natural molt to occur, thereby sustaining more efficient rates of egg production and improved egg quality. With respect to the egg production industry, molting results in the need to add approximately 40 to 50% fewer hens each year than would be needed without induced molts. This results in significantly fewer spent hens that have to be handled, transported and slaughtered. Without molting, a flock's life is usually terminated at about 75 to 85 weeks of age. Under the right economic conditions, the useful life of a flock may be extended to 110 weeks or longer.

Recognizing the need to introduce new molting procedures, UEP requested proposals from the scientific community to develop practical alternatives to molt programs that required feed removal with emphasis on performance and behavior. Five universities were granted research funds to pursue these objectives, including the University of Illinois, University of Nebraska, North Carolina State University, University of California and University of Arkansas.

After having reviewed the findings of the university research projects for non-feed withdrawal molt programs, as well as field trials by egg producers, the Scientific Advisory Committee modified their recommended guidelines in February 2005. Based upon these recommendations, UEP amended the "Animal Husbandry Guidelines for U.S. Egg-Laying Flocks" and has adopted the following guidelines for inducing a flock molt.

## Guidelines for Molt Program

- 1. Only non-feed withdrawal molt methods will be permitted after January 1, 2006.*
- 2. Hens should be provided with a feed source that is suitable for non-producing hens.*
- 3. Water must be available at all times.*
- 4. The light period should be reduced to no fewer than 8 hours in closed houses, or to natural day length in open houses, for the duration of the rest period. When the flock is placed back on a layer diet, lights should be returned to the normal layer program.*
- 5. During the molt period, body weight loss should be sufficient so as not to compromise hen welfare in the subsequent laying period.*
- 6. Total mortality during the molt period should not substantially exceed normal variations in flock mortality.*

# Handling, Catching and Transport

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Leghorn-type hens tend to have relatively weak bones by the end of lay. Bones become weak when structural bone is broken down to obtain calcium for eggshell formation. It is important that all hens are able to consume sufficient calcium and phosphorus to support eggshell formation without loss of structural bone. As a result of this, there is a high risk of bone fractures occurring when they are handled prior to slaughter. Catching appears to be the primary source of injury prior to arrival at the slaughter plant.

Houses should be designed to enable transport vehicles and/or transport containers to be moved close to the locations where birds will be caught or released so that the distance that birds are hand-carried is minimized.

Whenever possible, the same containers used to transport live birds on vehicles - such as pullet carts, mobile racks with drawers, or coops - should be used to move live birds from the house to the transport vehicle, or from the transport vehicle to the house, rather than carrying birds in and out of the house by hand. Doorways, loading ramps and alleys should be designed to accommodate the safe use of pullet carts or other containers.

Birds must not be abused by being thrown, kicked, crushed or otherwise mishandled. Escape and dropping of birds must be minimized.

## Guidelines for Catching and Transport

- 1. Catching of pullets and hens must be done in a manner that avoids crowding or piling in corners, which could result in suffocation of birds. Sudden loud noises and other disturbances alarming to birds should be minimized.*
- 2. To minimize the risk of bone breaks and other injuries, all people involved in catching and transport must be trained, knowledgeable and skillful in handling hens. Crews must be supervised by experienced personnel.*
- 3. When catching birds, use the lowest light level possible that will not impinge on worker safety, or use blue lights that will calm the birds while providing better visibility for catchers. If possible, in cage-free houses, catch the birds at night.*
- 4. Hanging racks should not be used to move birds.*
- 5. Birds moving into or out of cage production systems should be handled so as to minimize bone breakage or injury. Therefore, pullet and hen handling methods must include: (a) removing birds from the cage one or two at a time by grasping both legs at the hock; (b) supporting the bird's breast as she is lifted over the feed trough; (c) handle birds in an upright posture.*
- 6. Birds in cage-free systems should be caught individually and held in a comfortable upright position with both hands as they are transferred directly into or out of a transport container. If this is not possible, birds should be carried by both legs with no more than three (3) birds in each hand. Hens should not be carried solely by a single leg or wing, or by the head, neck or tail. Whenever possible, passing birds from one person to another or transferring birds from one container to another should be avoided.*

7. *The size of openings such as container doors, cage doors and panels on trucks should be large enough to permit easy passage of hens to avoid bone breakage and other injuries.*
8. *Containers must not be dropped or tipped such that birds pile up against the side. Stocking density should be such that all birds can sit comfortably at the same time.*
9. *Birds must be loaded only into clean, well-maintained transport containers and vehicles. The doors of the containers must be closed securely so that birds do not escape during loading or transit. Visibly unfit birds must not be loaded for transport. They should be euthanized.*
10. *The drivers of transport vehicles must be aware of climate conditions and make necessary adjustments (e.g., to bird density, tarps, fans during standby) to keep birds thermally comfortable.*
11. *Catching and transport must be planned so that feed is withdrawn no more than 24 hours prior to slaughter or depopulation.*
12. *Water must not be withdrawn prior to catching.*



## Euthanasia and on-Farm Depopulation of Entire Flocks

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When euthanasia of a chick or grown bird is necessary, the industry's best management practices support only those approved methods that are instantaneous and painless.

It is the producer's responsibility to ensure that euthanasia of sick or injured birds during the production cycle, and on-farm depopulation of spent hens, are conducted in a humane manner and that workers treat birds with respect. A person with authority should be assigned by the producer to be in charge of continuous monitoring during on-farm depopulation to ensure that bird welfare is protected in adherence to these guidelines.

All producers should have a written Standard Operating Procedure (SOP) for emergency depopulation for use in the event of a disease outbreak or other disaster that requires emergency culling of the entire flock. The SOP should be developed in consultation with a veterinarian and updated as new and better methods are approved. The SOP should adhere to the humane principles established by the World Organization for Animal Health (OIE).

All workers should be trained on euthanasia. This training should include information about the ability of hens to experience pain and fear, the risk of bone fractures when handling spent hens, proper use of equipment, methods of identifying unconsciousness and death, worker safety, biosecurity procedures and proper carcass disposal.

Water-based foam may only be used for depopulation in accord with performance standards issued by the U.S. Department of Agriculture's Animal and Plant Health and Inspection Service (available at [www.avma.org/KB/Policies/Pages/Poultry-Depopulation.aspx](http://www.avma.org/KB/Policies/Pages/Poultry-Depopulation.aspx)). Use of water-based foam may be acceptable for poultry infected with a potentially zoonotic disease; or those that are experiencing an outbreak of a rapidly-spreading infectious disease that, in the opinion of state or federal regulatory officials, cannot be contained by conventional or currently-accepted means of depopulation; or those that are housed in structurally unsound buildings that would be hazardous for human entry, such as those that may result from a natural disaster.

### Guidelines for Euthanasia and On-Farm Depopulation of Entire Flocks

- 1. All workers involved in euthanasia and on-farm depopulation must receive training and be regularly evaluated for their ability to carry out the method(s) in use on the farm in a skillful, safe and compassionate manner in accord with these guidelines.*
- 2. Methods must cause rapid death or rapid loss of consciousness lasting until death, or if loss of consciousness occurs more slowly, it must be induced in a manner that does not cause pain or panic. Methods currently considered acceptable for euthanasia and on-farm depopulation when properly applied include carbon dioxide (or other suitable gases), which can be delivered using a modified atmosphere killing (MAK) cart or similar device, cervical dislocation, non-penetrating captive bolt and electrocution.*
- 3. Birds must be confirmed to be dead prior to disposal. Any birds found to be still alive must be rapidly euthanized in an acceptable manner.*

4. *When using a modified atmosphere killing (MAK) cart, similar system (e.g., barrels on dollies) or other receptacles into which gas is introduced to kill birds using CO<sub>2</sub> gas in air, the following additional points should be observed:*
- The container should be moved into close proximity to the birds, and birds should be placed directly into the container with a minimum of handling as described in the catching and handling section above.*
  - The system must be designed to ensure that all birds are exposed to sufficient vaporized CO<sub>2</sub> to rapidly induce and maintain unconsciousness until death.*
  - To render birds rapidly unconscious, the container should be pre-charged with vaporized CO<sub>2</sub> prior to introducing birds. Because CO<sub>2</sub> escapes when birds are introduced to the container and CO<sub>2</sub> tends to stratify over time, containers should be designed and equipped to enable addition of CO<sub>2</sub> during and after loading as needed to ensure that the birds do not revive. (A two-phase system may be used whereby a lower CO<sub>2</sub> concentration is used to induce loss of consciousness, followed by a higher CO<sub>2</sub> concentration to kill the birds.)*
  - CO<sub>2</sub> should be added to the container slowly so that it does not freeze. The gas distribution system should be designed such that CO<sub>2</sub> is evenly distributed throughout the container.*
  - The process should include observations that permit determination of the effectiveness of the system. For example, the container could include a window or transparent door or be constructed of material that enables visual monitoring of bird movement inside without opening it.*
  - Birds inside the container must be unconscious before introducing any additional birds on top of them.*
  - Containers should not be tipped or dropped while they contain conscious birds. The slope of the container floor must not be so great that conscious birds pile up against the wall.*
  - After the last birds have been placed in the container and sufficient gas has been added to kill the birds, the container should be left closed for at least 2 minutes to ensure that all birds are dead. Birds must be confirmed to be dead before removal from the container.*
  - Producers must document the amount of CO<sub>2</sub> used and the number of birds killed for each house that is depopulated. Use of containers to kill birds without adding an adequate amount of gas is unacceptable.*

## Biosecurity and Animal Health

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Biosecurity continues to be one of the most important requirements in a laying hen operation.

- Each company should have a biosecurity and animal health plan.
- Houses must be kept in good repair and all areas to which the birds have access should be kept free of materials hazardous to the birds.
- Poultry houses must be cleaned following each flock.

- Facilities must practice pest, rodents, small animals, wild birds, insects and predator control.
- All birds should be inspected at least daily.

## Guidelines for Biosecurity and Animal Health

1. *Only necessary personnel should be allowed in poultry buildings. If it is necessary to enter more than one building, personnel should move from the youngest to the oldest birds, and from the healthiest to the least healthy birds.*
2. *Access to property by visitors should be restricted. Visitors must not be allowed into the poultry house without proper supervision.*
3. *Birds should not be exposed to disturbing noises or visual stimuli or strong vibrations. All caretaking activity should be conducted with slow deliberate movements to avoid birds “piling” into corners or around equipment.*
4. *Wild birds, rodents, pets and other animals should not be permitted in poultry houses.*

## Public Trust

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Concerns about the welfare of farm animals have risen because of public interest in, and expectations regarding, the use and treatment of animals. Maintaining the public’s trust and consumer confidence is critical to the egg production industry. Company ownership and supervisors should take responsibility for employee conduct. At a minimum, employees should be required to have regular training of how to handle birds using UEP’s latest employee training video.

- Require all poultry caretakers and service crews to sign the Code of Conduct form included on page 16.

### UEP’S RESPONSE TO ANIMAL ABUSE ALLEGATIONS

- A UEP investigative standing committee will be established to work with staff.
- The committee will consider the allegations, approve any Public Relations statements, contact the targeted UEP Certified company, schedule an on-farm investigation and determine who will be involved in the Farm Investigation Team.
- Upon completion of an on-farm investigation, the Farm Investigative Team may do the following:
  1. Publish a timely report.
  2. Make recommendations to UEP’s investigative standing committee for future actions, including the possible termination of a company’s UEP’s Certified status.
  3. Call for another third-party audit by a different firm than the one that did the previous audit.

**CODE OF CONDUCT FOR POULTRY CARETAKERS**

**(EMPLOYEE)**

Employee Name \_\_\_\_\_ (Print) Date \_\_\_\_\_

1. Fresh feed must be made available on a daily basis. If not, correct the problem or contact supervisor.
2. All lights should be in working order. If lights are not in working order, correct the problem or contact supervisor.
3. Air should be moving through the house at all times. If fans, air inlets or curtains are not in working order, correct the problem or contact supervisor.
4. Water must be available at all times. Water supply issues must be corrected or brought to the attention of the supervisor.
5. Shelter should be appropriate for bird's age, type and production. Correct the problem or notify supervisor if you should see equipment that is broken or worn out, including cages, nest boxes, perches, litter areas, netting and fencing.
6. Biosecurity rules and standard animal welfare practices need to be obeyed. If biosecurity rules are not being followed by fellow employees, contact the supervisor immediately.
7. Safety rules of the farm must be followed. If the safety rules of the farm are not being obeyed contact the supervisor.
8. Injured or sick birds need to be cared for. Contact supervisor if you have questions about the action to be taken with such birds.
9. Proper euthanasia of sick, injured or cull birds will be conducted by a trained employee. Contact supervisor if you are unable to perform this task.
10. Dead birds will be removed from bird living areas on a daily basis and properly disposed of. Contact supervisor if procedure is not being followed by all employees.
11. All birds (live or dead) will be handled with respect and dignity. Proper handling and catching methods to minimize stress must be followed. Any person not adhering to this should be reported to supervisor.

Employee Signature \_\_\_\_\_

Supervisor's Signature \_\_\_\_\_ Company: \_\_\_\_\_





**CODE OF CONDUCT FOR  
NON-EMPLOYEE SERVICE CREWS**

Company Name \_\_\_\_\_

Crew Member Name \_\_\_\_\_ (Print)

Date \_\_\_\_\_

1. Biosecurity rules and standard animal welfare practices need to be obeyed. If biosecurity rules are not being followed by fellow employees, contact supervisor.
2. Safety rules of the farm must be followed. If the safety rules of the farm are not being obeyed, contact the supervisor.
3. Injured or sick birds need to be cared for. Contact supervisor if you have questions about the action to be taken with such birds.
4. Proper euthanasia of sick, injured or cull birds will be conducted by a trained employee. Contact supervisor if you are unable to perform this task.
5. All birds (live or dead) will be handled with respect and dignity. Proper handling and catching methods to minimize stress must be followed. Any person not adhering to this should be reported to supervisor.

Crew Member Signature: \_\_\_\_\_

Supervisor Signature: \_\_\_\_\_ Company: \_\_\_\_\_



## Recommendations for Reporting of Animal Cruelty, Abuse, Neglect or Possible Contamination

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It is the responsibility of every employee to continuously watch for employees or other persons who may engage in animal cruelty, abuse and/or neglect of the birds, and to watch for signs of possible flock contamination, evidence of cross-contamination or people trespassing on company property that may lead to contamination.

**The company does not tolerate animal cruelty, intentional abuse or neglect of any animal under its care. Anyone who is witnessed doing so, or suspected of doing so, must be reported to the company management immediately and the report should include the person's name, the location and the time of the incident. The failure of an employee to report cases of animal abuse or neglect may result in that employee's termination of employment.**

Furthermore, any employee who observes anything that may indicate a bird or flock is or may be subject to contamination must also notify management immediately. Possible contamination can be determined from an employee violating the biosecurity policies, the physical appearance of a bird or a flock, or having knowledge that an employee has exposure to any other type of fowl outside the workplace, including keeping pet birds or a small flock of chickens. Also, trespassers on property pose a significant risk of flock contamination. The potential damages from contamination or cross-contamination can be disastrous for the animals, and it is critical that all employees be aware of possible contamination or cross-contamination.

**Again, all incidents of potential animal abuse, neglect, or cruelty, or possible contamination should be reported immediately.**



# Guidelines for Cage Production

## Housing and Space Guidelines

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Numerous studies have shown that decreasing space allowance in cages to below a range of 67-86 square inches per hen significantly reduces the welfare of the hen, decreases hen-housed egg production and increases mortality.

Cage space will vary depending on type of cages and birds being housed. For example, space allowance can be at the low end of the range in shallow cages in which small Leghorn strains are housed, but space should be at the higher end of the range in deep cages housing larger strains like brown hens. (Science has shown that additional space may be more stressful as more aggressive tendencies become manifest.)

Housing for chicks, pullets and hens should be constructed and maintained to provide protection for the birds from environmental extremes, manure contact and predators. The birds should be managed in a manner that minimizes transmission of disease, infection with parasites and vermin infestation in accordance with accepted principles for disease prevention. House and cage design must facilitate optimal daily care and inspection of the birds.

Cages should be designed and maintained so as to avoid injury to the birds. Cage, feeder and waterer construction should take into account proven advantages for bird comfort and health, and should facilitate the safe removal of birds.

## Guidelines for Cage Production Systems

*While most of these guidelines are currently being used or can be implemented rather quickly, the recommendations dealing with cage configuration and size are intended for new construction and are to be implemented along the recommended phase-in schedule found later in this document. Variances due to unalterable features of existing equipment will be permitted for the useful life of that equipment.*

- 1. Cage configuration and equipment maintenance should be such that manure from birds in upper cage levels does not drop directly on birds in lower level cages.*
- 2. All hens should be able to stand comfortably upright in their cage. The slope of the cage floor should not exceed 8 degrees.*
- 3. Space allowance should be in the range of 67 to 86 square inches of usable space per bird to optimize hen welfare.*
- 4. Feeder space should be sufficient to allow all birds to eat at the same time.*
- 5. Layers, pullets and hens should have continuous access to clean drinking water. Water may be shut off temporarily in preparation for administration of vaccines or medication in the water. The*

*manufacturer's guidelines for the number and placement of drinkers should be consulted, and general recommendations for watering space for layers are as follows:*

<i>Age</i>	<i>Linear trough space/bird</i>	<i>Max # birds/cup or nipple</i>
<i>&gt;18 weeks</i>	<i>1.0 inches</i>	<i>12</i>

*Perimeter space needed for round waterers can be determined by multiplying linear trough space by 0.8.*

- 6. Water pressure must be regulated carefully with some automatic devices and watering cups. Manufacturer recommendations should be used initially and adjusted if necessary to obtain optimal results. Automatic watering devices may require frequent inspection to avoid malfunctions.*
- 7. Poultry houses should be designed to provide a continuous flow of fresh air for every bird. Sufficient ventilation to minimize levels of carbon monoxide, ammonia, hydrogen sulfide and dust is critically important. The ammonia concentration to which the birds are exposed should ideally be less than 10 ppm and should not exceed 25 ppm, but temporary excesses should not adversely affect birds' health.*
- 8. Lights should be provided to allow effective inspection of all birds. Inspection of the birds should be conducted daily. Light intensity should be 0.5 to 1-foot candle for all birds at feeding levels during production.*
- 9. Birds should not be exposed to disturbing noises or visual stimuli or strong vibrations, whether originating inside or outside the house. Visitors should not be allowed without proper supervision, because they could cause birds to panic and injure themselves in their rush to escape, and for biosecurity reasons. Wild birds, pets, and other animals should, likewise, not be allowed in the poultry house.*
- 10. Environmental conditions within the house should allow the birds to maintain their normal body temperature without difficulty.*
- 11. Nutritionally-adequate fresh feed must be easily accessible to all birds and care shall be taken at each rehousing of flocks to ensure that the birds find the feed.*
- 12. In layer houses that require mechanized ventilation, stand-by generators with alarm systems must be provided and tested regularly. Such systems should be sufficient to supply emergency power for lighting, watering, ventilation and feeding.*

## Backfilling

Other than a catastrophic event, backfilling of cages to replace mortality is prohibited under the United Egg Producers Certified program. A catastrophic event is defined as a natural disaster, disease problem or other event beyond the control of the producer that results in a loss of at least 6% of the flock in a very short period of time (typically less than a week). Under these circumstances, backfilling of hens up to 100% of the flock at the time of the catastrophic event shall be permitted, provided that new layers are placed in empty cages. The event causing the excess mortality shall be documented on the company's Quarterly Compliance Report, along with the calculation for backfilling hen numbers and the source of the new birds backfilled, including the house number and flock number. Prior approval for backfilling must be requested from and approved by UEP.



## Incomplete Flock

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A house that is not completely filled on the original date of housing will be considered an incomplete flock and may accept additional pullets at a later date to complete the filling of the house to the UEP Certified allowable cage space allowance. Mortality that may occur during the period of the original date of housing and the date of new pullets being added may not be replaced in the count. Company records must document when the layer house was supplied with pullets and when additional pullets were added. Empty cages at the date of original housing must be set aside to accept the additional pullets to assure that no commingling of the original pullets and additional pullets occurs.

## Time Period for Implementations

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In regard to the space allowance per hen, the required egg supply to meet the market demand could be disrupted by immediate changes. Therefore, a phase-in period was necessary to assure no disruption to the market needs, as well as to allow egg producers the opportunity to complete the current production cycle including replacement pullets currently being grown. The house average phase-in schedule shown below was used to accomplish these goals and to create a level playing field for both producers and the marketplace. The square inches of space is based upon the total cage space within existing houses to arrive at an average space per hen on the date of housing hens at 18 or 20 weeks of age.

The ultimate goal is to meet the minimum cage space per hen as recommended within the Housing and Space Allowance section of these guidelines. Therefore, it is recommended that all new houses or remodeled houses be constructed to accommodate minimum standards rather than the house average concept.

The “house average” space allowance will be permitted for all equipment installed by December 31, 2003. Any equipment purchased, contracted for or built after this date must accommodate the placement of hens after August 1, 2008, at a minimum of 67 square inches per hen for White Leghorn hens and 76 square inches for brown egg layers.

# Acknowledgements

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