



Animal Welfare Institute

900 PENNSYLVANIA AVENUE, SE, WASHINGTON, DC 20003 · 202-337-2332 · AWIONLINE.ORG

June 25, 2024

Mr. Brian Baldridge, Director of Ohio Department of Agriculture
Dr. Dennis Summers, State Veterinarian
Ohio Livestock Care Standards Board
Ohio Department of Agriculture Division of Animal Health
8995 E. Main St. Reynoldsburg, OH 43068
Submitted via: AGReComments@agri.ohio.gov

Re: Ohio Livestock Care Standards OAC 901:12-9, 901:12-10, 901:12-11.

Dear Mr. Baldridge, Dr. Summers, and Other Members of the Ohio Livestock Care Standards Board,

Thank you for the opportunity to participate in the stakeholder review for the proposed changes to these chapters. The Animal Welfare Institute (AWI) submits the following recommendations and encourages the Ohio Livestock Care Standards Board (Board) to ensure that the rules are updated to reflect the current best management practices for the care and well-being of livestock, livestock practice standards, and generally accepted veterinary medical practices, as required by ORC § 904.03.¹ The chapters up for review are outdated in many regards and they should be updated as needed, especially where they fall short of industry guidance.

Suggested *additions* and *deletions* to specific sections are noted below.

A. General Recommendations

Definitions 901:12-3-01

(K) "Humane" is the care and handling of livestock that ~~seeks to~~ minimizes distress ~~through utilization of the standards established by this chapter~~ and promotes positive experiences and states..

Although not currently up for review, AWI encourages the board to reconsider the definition of humane as stated in 901:12-3-01(K) OR adopt more explicit requirements where the rules now only mandate procedures to be performed in a humane manner.

This definition should be improved by clarifying that humane care and handling must minimize distress, rather than merely seeking to do so. The remainder of the definition is problematic in light of other sections of rules allowing certain physical alterations known to cause pain, so long as they are “performed in a humane manner.” For example, beak and toenail conditioning,

¹ Ohio Rev. Code. §904.03. (2010). <https://codes.ohio.gov/ohio-revised-code/section-904.03>

dubbing, de snooding and induced molting are all “acceptable to minimize injury” and “if performed, must be performed in a humane manner.”²

However, to perform them in a humane manner (according to the given definition) one must use standards established in the rules—standards that are not provided. Thus, in order to clarify multiple sections of rules, either standards to minimize distress and pain needs to be adopted, or “through utilization of the standards established by this chapter” should be removed from the definition.

Further, the definition of *humane* could be improved by defining it as “the care and handling of livestock that minimizes distress,” and retaining the current definition of *distress* as “occurs when livestock are injured, sick, or in pain.” In line with advancements in the field of animal welfare to recognize the importance of positive welfare states,³ we once again suggest expanding the definition of humane.

901:12-9-04; 901:12-10-04; 901:12-11-04 Transportation

Additionally, AWI recommends that all sections related to transport explicitly require an assessment for fitness to travel; animals deemed unfit for the intended journey should be immediately euthanized or their transport postponed and appropriate, veterinary-directed care instituted. It is currently best practice for all species to assess an animal’s fitness for transport prior to loading.⁴ In fact, last week the AVMA passed a new policy on the transportation of animals that stipulates “Animals must be evaluated and determined to be fit for transportation.”⁵ It is well understood that birds sent for slaughter in poor health or with pre-existing conditions are more likely to die or suffer during transport.⁶ A fitness assessment needs to take into account not only the condition of individual birds but also the conditions of the journey planned.⁷

² OHIO ADMIN. CODE §§901:12-9-3(C), 901:12-10-3(C), 901:12-11-3(C)

³ Mellor, D. J. (2016) Updating Animal Welfare Thinking: Moving Beyond the "Five Freedoms" Towards "A Life Worth Living". *Animals*, 6(3):21 <https://doi.org/10.3390/ani6030021>; Mellor, D. J. (2016) Moving Beyond the "Five Freedoms" by Updating the "Five Provisions" and Introducing Aligned "Animal Welfare Aims" *Animals*, 6(10):59. <https://doi.org/10.3390/ani6100059>

⁴ World Organization for Animal Health [WOAH], *Terrestrial Animal Health Code, Chapter 7.3, Transport of Animals by Land* (2011); National Chicken Council Broiler Welfare Guidelines and Audit Checklist, 14 (2022) https://www.nationalchickencouncil.org/wp-content/uploads/2023/01/NCC-Broiler-Welfare-Guidelines_Final_Dec2022-1.pdf (“Any birds found during catching that are unfit for transport should not be loaded and must be euthanized); National Turkey Foundation Animal Care Guidelines, NFT Catching and Transport Audit Worksheet available at <https://www.eatturkey.org/animal-welfare/standards/> (“Verify through observation that birds unfit to travel are not loaded and are euthanized on-farm”).

⁵ R. Scott Nolen, American Veterinary Medical Association, *House passes updated ethics document, new transport policy* (June 23, 2024) <https://www.avma.org/news/house-passes-updated-ethics-document-new-transport-policy>

⁶ Consortium of the Animal Transport Guides Project, European Commission, *Good practices for animal transport in the EU: poultry* (SANCO/2015/G3/SI2.701422) available at https://food.ec.europa.eu/document/download/7e082580-304b-4be3-8d66-07d912121771_en?filename=aw_awp_transport-guides_poultry_transport-good-practices_en.pdf

⁷ European Food Safety Authority (EFSA) Panel on Animal Health and Welfare (AHAW), Nielsen, S. S., et al. (2022) Welfare of Domestic Birds and Rabbits Transported in Containers. *EFSA J.*, 20(9): e07441 <https://doi.org/10.2903/j.efsa.2022.7441>

B. Recommendations for Poultry Layers (901:12-9)

901:12-9-02 *Feed and water*

(A) Water may be withheld based on specific direction, written or verbal, of a licensed veterinarian and only for the period of time specified by the veterinarian;
or

(B) Water may be restricted or withheld temporarily by the responsible party in ~~circumstances such as: only in (1)~~ Preparation for administration of vaccines or medication in the water.

~~(2) Preparation for transportation; or,~~

~~(3) Specific management practices, according to the farm's operating procedures.~~

Recommendation

Water should not be withheld from laying hens except for medical treatment. Several studies have documented the negative consequences to health and welfare of withholding water (e.g. mortality, negative affective states).⁸ Subsection (2) should be removed, as the industry's standards have been updated--the United Egg Producers (UEP) conventional and cage free standards both state "Water must not be withdrawn prior to catching."⁹ Finally, (3) is so broad as to be a catch-all for any justification and should also be removed.

901:12-9-03 *Management.*

(B) ~~Except for paragraph (C) of rule 901:12-3-05 of the Administrative Code,~~ birds can be caught or carried ~~only by one or~~ both legs, and are not to be caught, carried, or lifted by a ~~single leg or wing, or the head, neck, or tail, with no more than three birds per hand at a time.~~

Recommendation

It is unclear what the purpose of referencing paragraph C of 901:12-3-05 is in this section, or in those identical sections within the chapters for broilers and broiler breeders and turkeys. When the reference is inserted, 901:12-9-03(B) reads "Except for [the requirement that "All practices and procedures pertaining to health/medical treatment of livestock must be done humanely"]],

⁸ Wurtz, K. E., et al. (2024) Water deprivation in poultry in connection with transport to slaughter-a review. *Poultry Sci.*, 103(5):103419. <https://doi.org/10.1016/j.psj.2023.103419> ("With the available literature, this review concludes that total transport (i.e., from the initial deprivation from water until time of slaughter) durations of longer than 6 h are likely associated with measurable physiological indicators of dehydration and may potentially be associated with negative emotional states."); El Sabry, M. I. et al. (2023) Water scarcity can be a critical limitation for the poultry industry. *Tropical Animal Health and Production*, 55(3):215. <https://doi.org/10.1007/s11250-023-03599-z>; Rault, J. L. et al. (2016) The effects of water deprivation on the behavior of laying hens. *Poultry Sci.* 95(3):473–481 <https://doi.org/10.3382/ps/pev337>

⁹ United Egg Producers, 2024 *Cage-Free Housing Animal Welfare Guidelines for U.S. Egg Laying Flocks* 16 (2023) available at https://uepcertified.com/wp-content/uploads/2023/10/CF-UEP-Guidelines_2024.pdf; United Egg Producers, *Animal Husbandry Guidelines for U.S. Egg Laying Flocks* 12 (2017) available at https://uepcertified.com/wp-content/uploads/2021/08/Caged-UEP-Guidelines_17.pdf; United Egg Producers, 2025 *Cage Housing: UEP Animal Welfare Guidelines for U.S. Egg Laying Flocks* 16 (2024) available at <https://uepcertified.com/wp-content/uploads/2024/02/2025-UEP-Cage-Guidelines-Final.pdf>.

birds can be caught or carried by one or both legs, and are not to be caught, carried or lifted by the head, neck or tail. AWI recommends that the board delete or clarify the reference in this section.

More importantly, this standard should be modified to exclude catching or carrying by a single leg or lifting or holding by one or both wings as an acceptable method under 901:12-9-3(B). Additionally, a limit should be set for how many birds may be carried per hand. Catching and crating are the primary sources of injury prior to hens arriving at the slaughter plant.¹⁰ Research has shown that catching hens by two legs, rather than one, results in fewer fractures.¹¹ Furthermore, UEP's cage-free standards require birds be caught and held either in a comfortable upright position with both hands, or carried by both legs with no more than 3 birds in each hand.¹²

901:12-9-03

(C) The following livestock management procedures are acceptable to minimize injury to the birds and, if performed, must be performed in a humane manner:

- (1) Beak conditioning;*
- (2) Toenail conditioning;*
- (3) Dubbing; and,*
- (4) Induced molting:*

If induced molting is used, the following conditions must also be met:

- (a) Use only non-feed withdrawal methods;*
- (b) Layers, feed a maintenance ration for non-producing layers and allow access to water at all times*
- (c) The light period reduced to no fewer than ~~six~~ eight 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; . . .*

Recommendation

UEP's standards require that the light period be no less than 8 hours, and that water be available at all times during the molt period.¹³ AVMA similarly requires that water must be available to hens at all times during molting.¹⁴ Currently, the care standards only require a minimum of 6 hours of light, and while molting via feed-withdrawal methods is prohibited, they do not

¹⁰ See e.g. 2025 Cage Housing: UEP Animal Welfare Guidelines for U.S. Egg Laying Flocks at 15; Valkova, L. et al. (2021) Traumatic Injuries Detected during Post-Mortem Slaughterhouse Inspection as Welfare Indicators in Poultry and Rabbits. *Animals* 11(9):2610 doi:10.3390/ani11092610 ("In laying hens, a major risk is posed by pulling end-of-lay hens out of cages and manually transferring birds into transport containers, where limb injuries are most likely to occur.")

¹¹ Gerpe, C. et al. (2020) Examining the catching, carrying and crating process during depopulation of end of lay hens. *J. of Applied Poultry Research* 30:100115 <https://doi.org/10.1016/j.japr.2020.100115>.

¹² 2024 Cage-Free Housing Animal Welfare Guidelines for U.S. Egg Laying Flocks, *supra* note 7 at 17.

¹³ 2024 Cage-Free Housing Animal Welfare Guidelines for U.S. Egg Laying Flocks, *supra* note 7 at 27; *Animal Husbandry Guidelines for U.S. Egg Laying Flocks*, *supra* note 7 at 10; 2025 Cage Housing: UEP Animal Welfare Guidelines for U.S. Egg Laying Flocks, *supra* note 7 at 20.

¹⁴ American Veterinary Medical Association, *Induced molting of layer chickens* (n.d.) available at <https://www.avma.org/resources-tools/avma-policies/induced-molting-layer-chickens>

explicitly state that water also cannot be withheld. The rules should be updated to reflect these changes in industry best practice and veterinary standards.

As noted at the beginning of these comments, the inclusion of “in a humane manner” is meaningless. Either the definition of “humane” needs to be updated or the requirement that physical alterations and induced molting be “performed in a humane manner” should be defined with specific criteria that prioritize minimizing pain and distress.

901:12-9-03 (E)

(5) *Housing must be designed and maintained in a manner which:*

...

(c) *Provides sufficient ventilation to maintain ammonia at a level less than 10ppm and rarely exceeding 25ppm, and to reduce concentrations of carbon monoxide, ammonia, and dust . . .*

Recommendation

The board should adopt specific maximum allowable levels of air pollutants. Currently, the requirement is only that ventilation is “sufficient to reduce concentrations” of these pollutants. Research shows clearly the negative effects of high concentrations of these air pollutants on the health and welfare of laying hens and farm employees, especially ammonia.¹⁵ High levels of dust increase risk of respiratory disease and barn fires.¹⁶ The board should at a minimum adopt current UEP requirements mandating concentrations of less than 10 ppm (and “rarely exceed 25 ppm”).¹⁷

901:12-9-03(F)

(3) *Systems installed on existing farms after the initial effective date of this rule provides for a minimum of sixty-seven square inches per white layer or seventy-six square inches for per brown layer;*

(4) *For systems installed prior to the initial effective date of this rule, house/barn averaging results in a minimum average of sixty-seven square inches per white layer or seventy-six square inches for per brown layer five years after the effective date of this rule;*

...

(H) *Cage-free housing systems must meet the following requirements:*

(1) *Cage-free housing systems installed after the initial effective date of this rule must provide a minimum of one-hundred forty-four square inches 1 square foot of*

¹⁵ Bist, R. B., et al (2023) Ammonia emissions, impacts, and mitigation strategies for poultry production: A critical review. *J. of Environmental Management*. 328:116919 <https://doi.org/10.1016/j.jenvman.2022.116919>; Park, J et al. (2020) Evaluation of Short-Term Exposure Levels on Ammonia and Hydrogen Sulfide During Manure-Handling Processes at Livestock Farms. *Safety and Health at Work* 11(1):109-117 <https://doi.org/10.1016/j.shaw.2019.12.007>

¹⁶ Wang, K. et al (2023) Particulate matter in poultry house on poultry respiratory disease: a systematic review. *Poultry Science*, 102(4):102556. <https://doi.org/10.1016/j.psj.2023.102556>; United Egg Producers, Fire Prevention and Mitigation on Farm in the Egg Industry (2022) available at <https://unitedegg.com/wp-content/uploads/2022/02/Fire-Mitigation-Report-300dpi-Final-2.3.2022.pdf>

¹⁷ 2025 Cage Housing: UEP Animal Welfare Guidelines for U.S. Egg Laying Flocks at 25 ("The ammonia concentration to which birds are exposed should be less than 10 ppm and must rarely exceed 25 ppm").

usable floor space per layer if access to vertical space is provided, or 1.5 square feet of usable floor space in systems that do not provide access to vertical space

Recommendation

Industry guidelines have been updated to take into account the difference in average hen size between commonly used breeds. The UEP guidelines mandate usable space per bird at no less than 67 square inches for white layers and no less than 76 square inches for brown layers.¹⁸ These rules should also be updated to reflect the size difference between birds. Additionally, UEP's cage-free housing standards mandate that hens without access to vertical space have a minimum of 1.5 square feet of usable floor space.¹⁹ Making this change would also ensure that eggs produced in Ohio are in compliance with the battery cage egg sales bans in effect in Arizona, California, Colorado, Michigan, Nevada, Oregon and Washington.

C. Recommendations for Broilers and Breeders (901:12-10)

901:12-10-02 Feed and water

- (A) Water may be withheld based on specific direction, written or verbal, of a licensed veterinarian and only for the period of time specified by the veterinarian;*
- or,*
- (B) Water may be restricted or withheld temporarily by the responsible party only in ~~circumstances such as:~~*
 - (1) Preparation for administration of vaccines or medication in the water.*
 - (2) Preparation for transportation, **not to exceed one hour prior to catching;** or,*
 - (3) Specific management practices, according to the farm's operating procedures.*

Recommendation

As with laying hens, the withholding of water for extended periods can cause health and welfare problems for broilers including contributing to increased mortality rates.²⁰ The allowable time period for the removal of water prior to transportation to slaughter should be limited, with research suggesting a maximum of 6 hours, including transport time and lairage period at the slaughter plant. Specifically, the National Chicken Council's welfare guidelines do not allow for water withdrawal to exceed an hour before catching begins.²¹

901:12-10-03 Management

- (A) The responsible party must catch, lift, and move poultry humanely.*
- (B) ~~Except for paragraph (C) of rule 901:12-3-05 of the Administrative Code,~~*
*birds can be caught or carried **only** by ~~one or~~ both legs, and are not to be caught, carried, or lifted by a **single leg or wing, or the head, neck, or tail, with no more than two bird per hand at a time.***

¹⁸ 2025 Cage Housing: UEP Animal Welfare Guidelines for U.S. Egg Laying Flocks, *supra* note 7 at 17.

¹⁹ 2024 Cage-Free Housing Animal Welfare Guidelines for U.S. Egg Laying Flocks, *supra* note 7 at 21.

²⁰ Wurtz, K. E. et al. (2024) Water deprivation in poultry in connection with transport to slaughter-a review. *Poultry Sci.* 103(5):103419 <https://doi.org/10.1016/j.psj.2023.103419>; Mhmoud, A. et al (2023) Responses of broiler chickens to incremental levels of water deprivation: Growth performance, carcass characteristics, and relative organ weights. *Open Agriculture.* 8(1):20220184 <https://doi.org/10.1515/opag-2022-0184>

²¹ National Chicken Council Broiler Welfare Guidelines and Audit Checklist, *supra* note 4 at 12.

Recommendation

As with laying hens, the method of catching and carrying broilers has significant effects on welfare and is directly tied to bone fractures and other injuries observed at slaughter. Broilers should not be caught or carried by a single leg, and current studies indicate that they should not be carried inverted by both legs either.²² However, if the board continues to allow that method, there should be a limit placed of two birds per hand.²³ Also, as noted above, the reference to 901:12-3-05(C) should be deleted or clarified.

901:12-10-03

(C) The following livestock management procedures are acceptable to minimize injury to the birds and, if performed, must be performed in a humane manner:

(1) Beak conditioning;

(2) Male back toe conditioning;

(3) Dubbing;

~~(4) Caponizing;~~ . . .

Recommendation

As noted above, the definition of “humane” should be revised or the requirement that these practices be “performed in a humane manner” must be defined with specific criteria that prioritize minimizing pain and distress. Additionally, the board should determine whether, given the invasive nature and the risk of causing extreme suffering, caponizing is a procedure that can be performed by someone other than a licensed veterinarian without violating Ohio’s veterinary practice statutes or regulations.²⁴ This surgical procedure involves entering the coelomic cavity of the bird (similar to the abdomen in mammals) and typically involves the use of, at a minimum, a local anesthetic. Because local anesthetic drugs are not labeled for use in poultry, and because they are food-producing animals as determined by the Food and Drug Administration, extralabel use of drugs must be overseen by a licensed veterinarian.

901:12-10-03(E)

(4) Stocking densities must ~~allow all broilers to rest at the same time without being forced to rest on top of each other at all stages of production~~ allow birds to have the have space to express normal behaviors such as dust bathing, preening and, in addition, provide all broilers access feed and water without excessive competition that prevents individuals in the flock from maintaining normal body condition;

²² Mönch, J. et al. (2020) The welfare impacts of mechanical and manual broiler catching and of circumstances at loading under field conditions. *Poultry Sci.* 99(11):5233–5251 <https://doi.org/10.1016/j.psj.2020.08.030>; Cockram, M. et al. (2020) Rearing and handling injuries in broiler chickens and risk factors for wing injuries during loading. *Canadian J. of Animal Sci.* 100(3):402-410 <https://doi.org/10.1139/cjas-2019-0204>.

²³ Wessel, J., et al. (2022) A comparison of two manual catching methods of broiler considering injuries and behavior. *Poultry Sci.*, 101(11):102127 <https://doi.org/10.1016/j.psj.2022.102127>

²⁴ OHIO ADMIN. CODE §4741-1-13

Recommendation

The guidelines used by National Chicken Council for both broilers and broiler breeders require that stocking density allow birds to have the space to “express normal behaviors such as dust bathing, preening, eating, drinking, etc.” and not merely avoid sitting on top of one another.²⁵

901:12-10-03(E)

(5) Housing must be designed in a manner which:

... (c) Provides sufficient ventilation *maintain ammonia at a level less than 25ppm*, and to reduce concentrations of carbon monoxide, ~~ammonia~~, and dust ...

Recommendation

As with laying hens, a specific standard for ammonia should be set at a minimum of 25 ppm, the standard set by both the World Organisation for Animal Health and National Chicken Council.²⁶ As mentioned above, research confirms that high ammonia levels negatively impact the health and welfare of both animals and workers. In addition, particulate matter (dust) in poultry houses “is mainly responsible for respiratory disease in broilers.”²⁷

901:12-10-03

(F) Broiler breeders housing must meet the following conditions:

...

(4) ~~If~~ Nest space is provided, ~~they~~ and must be cleaned as necessary to ensure that manure does not accumulate.

Recommendation

Studies have shown that providing appropriately designed nests improved welfare and productivity of broiler breeder hens.²⁸ National Chicken Council standards require adequate nest space be provided for breeder hens.²⁹

²⁵ National Chicken Council Broiler Welfare Guidelines and Audit Checklist, *supra* note 4 at 12; National Chicken Council, *Animal Welfare Guidelines and Audit Checklist for Broiler Breeders* 14 (2020) available at https://www.nationalchickencouncil.org/wp-content/uploads/2021/02/NCC-Animal-Welfare-Guidelines_Broiler-Breeders_Sept2020.pdf

²⁶ National Chicken Council Broiler Welfare Guidelines and Audit Checklist, *supra* note 4 at 11 (“A documented ammonia monitoring program must be in place which must include an objective monitoring method and appropriate corrective actions should the maximum ammonia level be exceeded.”); World Organization for Animal Health, *Terrestrial Animal Health Code, Chapter 7.10*, Animal Welfare and Broiler Chicken Production Systems (2016) available at https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/?id=169&L=1&htmlfile=chapitre_aw_broiler_chicken.htm

²⁷ Wang, K. et al (2023) Particulate matter in poultry house on poultry respiratory disease: a systematic review, *Poultry Sci.* 102(4):102556 <https://doi.org/10.1016/j.psj.2023.102556>.

²⁸ European Food Safety Authority AHAW Panel, Nielsen, S. S., et al. (2023) Welfare of broilers on farm. *EFSA Journal*. 21(2):e07788. <https://doi.org/10.2903/j.efsa.2023.7788>; van den Oever, A. et al. (2020) Relative preference for wooden nests affects nesting behaviour of broiler breeders, *Applied Animal Behaviour Science*. 222:104883 <https://doi.org/10.1016/j.applanim.2019.104883>.

²⁹ *Animal Welfare Guidelines and Audit Checklist for Broiler Breeders*, *supra* note 22 at 14.

D. Recommendations for Turkeys and Turkey Breeders (901:12-11)

901:12-11-02 *Feed and water*

(A) *Feed withdrawal must not exceed 12 hours prior to transport*

(B) ~~(A)~~ *Water may be withheld based on specific direction, written or verbal, of a licensed veterinarian and only for the period of time specified by the veterinarian*

Recommendation

There appears to be no feed requirement at all. However, long periods without food are detrimental to welfare, and have been shown to cause health and welfare problems in turkeys, as well as increased salmonella contamination in the crops and carcasses of broilers.³⁰ The National Turkey Federation's (NFT) animal care audit guidelines limit feed withdrawal to 12 hours prior to transport.

901:12-11-03 *Management*

(B) ~~Except for paragraph (C) of rule 901:12-3-05 of the Administrative Code,~~ *birds can be caught or carried only by one or both legs, and are not to be caught, carried, or lifted by a single leg or wing, or the head, neck, or tail.*

Recommendation

As with broilers and laying hens, catching and transportation is recognized as a source of significant stress for turkeys and is the source of injuries observed at slaughter.³¹ Especially because of their weight, turkeys should never be carried by a single leg or wing. The NFT audit specifically prohibits carrying a bird by a single leg or wing.³²

901:12-11-03

(C) *The following livestock management procedures are acceptable to minimize injury to the birds and, if performed, must be performed in a humane manner:*

(1) *Beak conditioning performed without the use of a mechanical clipper or hot blade;*

(2) *Toenail conditioning performed without the use of a mechanical clipper*

Recommendation

Although less well studied in turkeys, it is generally accepted that all methods of beak trimming cause some degree of pain, and it is probably worse in older birds.³³ As suggested with the

³⁰ Rathgeber, B.M. et al. (2007) Feeding Turkeys a Highly Digestible Supplement During Preslaughter Feed Withdrawal, *Poultry Sci.* 86(9):2029-2033 <https://doi.org/10.1093/ps/86.9.2029>.

³¹ European Food Safety Authority (EFSA) Panel on Animal Health and Welfare (AHAW), Nielsen, S. S., et al. (2022) Welfare of Domestic Birds and Rabbits Transported in Containers. *EFSA J.*, 20(9): e07441 <https://doi.org/10.2903/j.efsa.2022.7441>

³² National Turkey Foundation Animal Care Guidelines, *NFT Commercial Turkey Audit Worksheet* available at <https://www.eatturkey.org/animal-welfare/standards/>

³³ Gentle, M. J. et al. (1995) Anatomical consequences of partial beak amputation (beak-trimming) in turkeys. *Research in Veterinary Sci.* 58(2):158–162. [https://doi.org/10.1016/0034-5288\(95\)90070-5](https://doi.org/10.1016/0034-5288(95)90070-5); Schwan-

other chapters, “performed in a humane manner” needs to incorporate specific criteria. Specifically, here, the board should exclude certain beak trimming methods (mechanical clipper or hot blade) that the NFT recognizes are “no longer considered acceptable.”³⁴ In recognition of the fact toe nail conditioning can also cause acute and sometimes chronic pain due to the formation of neuromas,³⁵ The NFT similarly considers the use of the “more invasive mechanical clipper” for toe conditioning “no longer acceptable.”³⁶

901:12-11-03(E)

(4) Stocking densities must ~~allow all turkeys to rest at the same time without being forced to rest on each other at all stages of production, and in addition provide all turkeys space to move freely and engage in natural behaviors, access feed and water without excessive competition that prevents individuals in the flock from maintaining normal body condition~~

Recommendation

Stocking density, especially in the later stages of production, is an important aspect of welfare for turkeys, and higher stocking densities are associated with reduced feed intake and increased mortality rates.³⁷ Accordingly, the audit guidelines established by the National Turkey Federation require that birds are “free to roam throughout the growing area and express normal behavior” and not merely avoiding sitting on top of one another.³⁸

901:12-11-03(E)

(5) Housing must be designed in a manner which:

... (c) Provides sufficient ventilation ~~maintain ammonia at a level less than 25ppm, and to reduce concentrations of carbon monoxide, ammonia, and dust; ...~~

Lardner, K. *The effects of hatchery practices on the welfare of poultry* in ADVANCES IN POULTRY WELFARE 29-48 (J. Mench Ed. 2018); American Veterinary Medical Association, *Literature Review on the Welfare Implications of Beak Trimming* (2010) available at <https://www.avma.org/resources-tools/literature-reviews/welfare-implications-beak-trimming>

³⁴ The National Turkey Federation, *Animal Care Best Management Practices for the Production of Turkeys* 16 (2008) available at https://www.fni.org/docs/animal-welfare/lp08-ntf_production_guidelines.pdf?sfvrsn=0 (“The procedure using a mechanical clipper or hot blade has been largely replaced with the adoption of new technology and is no longer considered acceptable.”)

³⁵ Schwean-Lardner, K. *supra* note 29; Gentle, M. J., & Hunter, L. H. (1988) Neural consequences of partial toe amputation in chickens. *Research in Veterinary Sci.* 45(3):374–376.

³⁶ *Animal Care Best Management Practices for the Production of Turkeys*, *supra* note 30 at 16-17.

³⁷ Erasmus, M., *Welfare issues in turkey production* in ADVANCES IN POULTRY WELFARE 263-291 (Mench, J. ed. 2018)

³⁸ National Turkey Federation Animal Care Guidelines, *NFT Commercial Turkey Audit Worksheet* available at <https://www.eatturkey.org/animal-welfare/standards/>

Recommendation

As with laying hens and broilers, a specific standard for ammonia should be set at the least, to 25 ppm, the standard set by the NFT.³⁹

901:12-11-03

(F) Turkey breeder housing must meet the following conditions:

...

(2) ~~If~~ Nest space is provided, ~~they~~ and must be cleaned as necessary to ensure that manure does not accumulate.

Recommendation

As with broiler breeders, industry standards require the provision of nests. The NFT Audit states that “Adequate nest space must be provided for hens” and specifies that there can be “no more than 7 hens per nest.”⁴⁰

E. Conclusion

Thank you again for the opportunity to submit comments on the proposed changes to these chapters of the care standards. We encourage the board to take a hard look at the places where current standards are outdated and we hope this information will be helpful in updating the rules to be consistent with industry standard, best management practices, and generally accepted veterinary medical practices. If you would like to discuss this matter further, or would like to receive any of the scientific literature cited in this letter, please contact me at adrienne@awionline.org.

Sincerely,

Adrienne Craig, Esq.
Staff Attorney and Senior Policy Associate
Animal Welfare Institute

Gwendy Reyes-Illg, DVM, MA
Veterinary Medicine Consultant
Animal Welfare Institute

³⁹ *Id.*; *Animal Care Best Management Practices for the Production of Turkeys*, *supra* note 30 at 19.

⁴⁰ National Turkey Foundation Animal Care Guidelines, *NFT Breeder Audit Worksheet*, criteria 7.1, available at <https://www.eatturkey.org/animal-welfare/standards/>