Japan's Comments on The Terrestrial Animal Health Standards Commission Reports of the September 2018 meeting

Japan would like to express its appreciation to the Terrestrial Animal Health Standards Commission (TAHSC) and other relevant Commissions, Working Groups and ad hoc Groups for all the works they have done. Japan also appreciates the TAHSC for providing us the opportunity to comment on the proposed revisions to the texts of Terrestrial Animal Health Code.

Please find our comments on the following texts and Annex:

Contents

1. CHAPTER 1.4. ANIMAL HEALTH SURVEILLANCE

1) Comments on Article 1.4.3. (Highlight with blue: See Comments)

Article 1.4.3.

Surveillance systems

[...]

1. Design of surveillance system

[...]

f) Analytical methodologies

[...]

The methodology used should be based on the best data sources available. It should also be in accordance with this chapter, fully documented and, whenever possible, supported by reference to scientific literature and other sources, including expert opinion. Sophisticated mathematical or statistical analyses ~~should only~~ may be carried out only when justified by the objectives of the *surveillance* and the availability and quality of field data.

[...]

Comments:

Japan agrees with the view that sophisticated mathematical or statistical analyses should be carried out with caution since unreliable result would be obtained if data used in the analyses was not appropriate. Japan expects OIE provides practical guidances for applying sophisticated mathematical or statistical analyses in surveillance including collection of appropriate field data.

2) Comments on Article 1.4.6. (Highlight with blue: See Comments)

Article 1.4.6.

Surveillance ~~to demonstrate~~ for freedom from an infection or infestation

[...]

2. Requirements to declare a country or a zone free from an infection or infestation

[...]

b) Historical freedom

Unless otherwise specified in the relevant chapter of the *Terrestrial Code*, a country or *zone* may be considered free without formally applying a pathogen-specific *surveillance* programme when:

i) for at least the past 10 years:

- no *vaccination* against the disease has been carried out;
- the prerequisites listed in point *a)* are complied with ~~for at least the past 10 years~~;

ii) the pathogenic agent is likely to produce identifiable clinical or pathological signs in susceptible animals;

iii) for at least 25 years there has been no occurrence of *infection* or *infestation* ~~or eradication has been achieved for the same length of time~~.

[...]

Comments:

Japan agrees with specifying conditions to be considered as historically free within this chapter. However, Japan seeks for scientific rationalefor the Articles 1.4.6.2.(b).i)and iii) especially for the period of “10 years of no vaccination” and “25 years of absence of infection and infestation”.

First of all, Japan would like to express its position on chapters of Section 7 (animal welfare).

As the RESOLUTION No. XIV of 70th OIE General Session of the World Assembly recommends that “as animal welfare is a complex, multi-faceted public policy issue that includes important scientific ethical, economic and political dimensions, the OIE develop a detailed vision and strategy to incorporate, balance and take account of these dimensions”. It is also noted in the World Organisation for Animal Health (OIE) Global Animal Welfare Strategy that “animal welfare is a complex, multifaceted, international and domestic public policy issue with scientific, ethical, economic, legal, religious and cultural dimensions plus important trade policy implications”. As animal production systems have been developed to so diverse all over the world taking into account climate, culture, social environment and so forth, Japan believes animal welfare recommendation in the OIE Code cannot be “fit-for-all” and due flexibility must be ensured.

In light of this point, Japan would like to make comments on Chapters 7.1. and 7.Z as follows:.

2. CHAPTER 7.1. INTRODUCTION TO THE RECOMMENDATIONS FOR ANIMAL WELFARE

1) Proposal of amendment to Article 7.1.4. Guiding principles for the use of measures to assess animal welfare (~~deletion~~)

Article 7.1.4.

Guiding principles for the use of measures to assess animal welfare

5) Users of the standard should select the most appropriate animal-based measures for their farming system or environment, from among those listed in the standard. Outcomes can be measured by an assessment of individuals or animal groups, or a representative sample of those, using data from establishments, transport or slaughterhouses/abattoirs. ~~To Guide users, Competent Authorities shouid collect all relevant data that can be used to set target values.~~

Rationale

It is not practical for Competent Authorities to set target values by collecting all relevant data from establishments, transport or slaughterhouses/abattoirs that fit for every animal production establishment because production systems and environments vary among animal production establishments. It would be more practical and appropriate to set target values based on actual values of relevant animal-based measurable in each establishment.

3. CHAPTER 7.Z. ANIMAL WELFARE AND LAYING HEN PRODUCTION SYSTEMS

1) Proposal of amendment to Article 7.Z.3. Criteria or measurable for the welfare of pullets and hens (insertion/~~deletion~~)

Article 7.Z.3.

1.Behaviour

a) Dusting bathing

Dust bathing is an intricate body maintenance behaviour. During dust bathing, pullets and hens~~bireds~~ work loose material, such as litter, through their feathers. This behaviour helps remove stale lipids ~~dirt~~ [Van Liere and Bokma, 1987] and parasites [Martin and Mullen, 2012], which contributes to maintaining plumage condition, which in turn helps to maintain body temperature and to protect against skin injury. Reduced dust bathing behaviour in the *flock* may indicate problems with litter or range quality, such as the litter or ground being wet or not friable [Olson and Keeling, 2005; Van Liere and Bokma, 1987]. Inadequate management of litter may cause respiratory diseases and increase of infestations and bacterial deseases [Madelin and Wathes,1989; Lay DC.et al.2001; Fossum O. et al.,2009]. The presence of complete sequences of dust bathing may indicate good welfare [Widowski and Duncan, 2000].

g) Nesting

Nesting is a ~~natural~~ normal and highly motivated behaviour that includes nest site selection, nest formation and egg laying [Cooper and Albentosa, 2003; Weeks and Nicol, 2006; Cronin et al., 2012; Yue and Duncan, 2003]. Uneven nest box utilisation and egg laying outside the nests may be indicative of problems with environmental or social behavioural factors [Cronin et al., 2012; Cooper and Appleby, 1996; Gunnarsson et al., 1999].Inadequate management of nest box may cause respiratory diseases and increase of infestations which affect serious damage to health of pullets and hens [Maurer. et al.,1993; A Sigognault F. et al., 2017; Hoglund. et al.,1995; Darley and Walker,2002; Meyer-Kuhling. et al.,2007].

h) Perching

Perching is a ~~natural~~ normal and highly motivated behaviour. ~~Birds~~ Pullets and hens seek elevation during the day; the motivation to seek elevation inorder to avoid predators is particularly strong at night when pullets and hens select a site for resting or sleeping [EFSA, 2015]. Reduced perching behaviour in the flock may indicate

problems with environmental factors, injuries and pullet rearing experience [Janczak and Riber, 2015; Gunnarsson et al., 1999].

5. Incidence of diseases, infections, metabolic disorders and infestations
Ill-health, regardless of the cause, is a welfare concern~~,~~ and may be exacerbated by poor environmental or husbandry management.

Especially inadequate management of litter may cause respiratory diseases and increase of infestations and bacterial deseases [Madelin and Wathes,1989; Lay DC.et al.2001; Fossum O. et al.,2009], also inadequate management of nest box may cause respiratory diseases and increase of infestations which affect serious damage to health of pullets and hens [Maurer. et al.,1993; A Sigognault F. et al., 2017; Hoglund. et al.,1995; Drakley and Walker,2002; Meyer-Kuhling. et al.,2007].

Rationale:

Japan proposes some amendments on criteria or measurable as follows.

1. Behaviour
a) It was reported that litter may cause respiratory diseases [Madelin and Wathes,1989] , and when managed inadequately, it may cause increase of infestation (coccidiosis and red mites(Demanyssus gallinae)) and bacterial deseases [Lay DC.et al.2011; Fossum O. et al.,2009]. Therefore, Japan proposes to insert the point to be noted about inadequate management of litter for dust bathing.

g) Providing structure such as nest and perches are suggested to result in increase of hot bed of infestations with red mite (Dremanyssus gallinae). [Maurer. et al.,1993; A Sigognault F. et al., 2017; Hoglund. et al.,1995; Drakley and Walker,2002; Meyer-Kuhling. et al.,2007]. Therefore, it is also required to state the points to be noted when nest box is not adequately managed.

h) In order to clarify the background of motivation for perching, Japan proposes to insert ‘ in order to avoid predators’. [EFSA, 2015]

g) and h) In order to ensure alignment with other animal welfare chapters, Japan proposes to insert ‘normal’ instead of ‘natural’.

5. Incidence of diseases, infections, metabolic disorders and infestations

Japan proposes insertion above with the same rationale for 1.a) and g).

(references)
Madelin and Wathes, 1989: Air hygiene in a broiler house: Comparison of deep litter with

raised netting floors. : British Poultry Science Volume 30: 23-37

Lay DC.et al., 2011: Hen welfare in different housing systems. : Poultry Science 90: 278-294

Fossum O.et al., 2009: Causes of mortality in laying hens in different housing systems in 2001 to 2004. Acta Vet scand.;51:3

Maurer, V., J. Baumgartner, M. Bieri, and D. W. Folsch. 1993. The occurrence of the chicken mite *Dermanyssus gallinae* (Acari: Dermanyssidae) in Swiss poultry houses. Mitt. Schweiz. Entomol.Ges. 66:87–97.

Sigognault Flochlay A.et al., 2017: Poultry red mite(Dermanyssus gallinae) infestation: a broad impact parasitological disease that still remains a significant challenge for the egg-laying industry in Europe. : Parasites & Vectors 10:357

Hoglund.et al., 1995: Prevalence of the poultry red mite, Dermanyssus gallinae, in different types of production systems for egg layers in Sweden. : Poultry Science 74:1793-8

Drakley, C., and A. Walker. 2002. Monitoring of red mite habitat preference and distribution in a barn egg production system. Br. Poult. Sci. 43:553–554.

Meyer-Kuhling, B., J. Heine, J. Muller-Lindloff, and K. Pfister. 2007. Epidemiology of *Dermanyssus gallinae* and acaricidal efficacy of phoxim 50% in alternative housing systems during the laying periods of hens. Parasitol. Res. 101:S1–S12.

2) Proposal of amendment to Article 7.Z.4. Recommendations (insertion/~~deletion~~)

Article 7.Z.4.

Ensuring good welfare of pullets and hens is contingent on several management factors, such as ~~including~~ system design, environmental and animal management practices which include responsible husbandry and provision of appropriate care. Serious problems can arise in any system if one or more of these elements are lacking.

Articles 7.Z.5. to 7.Z.29. provide recommendations for measures applied to pullets and hens.

Each recommendation in Article 7.Z.5. to 7.Z.29. includes a list of relevant animal-based criteria or ~~and~~ measurables derived from Article 7.Z.3. This does not exclude other criteria or ~~and~~ measurables being used where or when appropriate. The suitability of some of these criteria or ~~and~~ measurables will be determined by the system in which the pullets and hens are housed.

~~Each recommendation includes a list of relevant outcome-based measurables derived from Article 7.Z.3. This does not exclude other measures being used when appropriate.~~

Rationale and comments:

Japan proposes some amendments to be consistent with other animal welfare chapters.

3) Proposal of amendment to Article 7.Z.5. Location, design, construction and 3) equipment of establishments (insertion/~~deletion~~)

Article 7.Z.5.

Location, design, construction and equipment of establishments

The location of pullets and hen establishments should be chosen to be safe from the effects of fires and floods and other natural disasters to the extent practicable. In addition, establishments should be located or designed to avoid or minimise disease risks, exposure of pullets and hens to chemical and physical contaminants, noise and adverse climatic conditions.

Pullet and ~~layer~~ hen houses, outdoor areas and accessible equipment should be designed~~, after consideration of bird the opportunities for pullets and hens to perform highly motivated behaviours (e.g. perching and nesting), to promote good animal welfare~~ and ~~be~~ maintained to avoid injury or pain to the pullet and hen ~~discomfort~~.

Good outcomes in the welfare and health of birds can be achieved in a range of housing systems. The design and management of the system are critical for achieving these outcomes.

Pullet and ~~layer~~ hen houses should be constructed with materials and electrical and fuel installations that minimise the risk of fire and other hazards.

Producers should have a maintenance programme in place for all equipment and contingency plans in place to deal with, ~~the~~ failures ~~of~~ which could jeopardise ~~birds~~ pullet and hen welfare.

Rationale:

Japan proposes amendments to be consistent with other animal welfare chapters and some editorial modifications.

Japan proposes to delete “after consideration of the opportunities for pullets and hens to perform highly motivated behaviours (e.g. perching and nesting), to promote good animal welfare “, because regarding design of establishments, it is important to consider about not only opportunity of behaviour but also health such as incidence of diseases, infections, metabolic disorders and infestations, injury rate and severity.

Instead, Japan proposes to add ‘Good outcomes in the welfare and health of birds can be achieved in a range of housing systems. The design and management of the system are critical for achieving these outcomes,’ because welfare and health are related to each other and both are important in design and management of houses, outdoor areas and accessible equipment.
And this modification is to ensure consistency with other animal welfare chapters, Article7.10.4 – 2 - p) and Article 7.13.12.

4) Proposal of amendment to Article 7.Z.7. Space allowance (insertion)

Article 7.Z.7.

~~Stocking density~~ Space allowance

Pullets and hens should be housed with a space allowance ~~stocking density~~ in a range of housing systems that allows them to have adequate access to resources and where possible to express locomotion and comfort behaviours. The following factors should be taken into account:

– management capabilities,

– ambient conditions,

– housing design ~~system~~

– usable space,

– production system,

– litter quality,

– ventilation,

– *biosecurity* strategy,

– genetics ~~strain~~,

– age and bird mass.

Animal~~Outcome~~-based measurables include: dust bathing, feeding and drinking ~~and~~ ~~foraging~~ behaviour, foraging activity, ~~feeding~~, incidence of diseases, *infections* and *infestations*, injury rate and severity, locomotory~~ion~~ and comfort behaviours, mortality rate, nesting, perching, performance, plumage condition, resting and sleeping, social behaviour, spatial distribution.

Rationale:

Japan proposes to insert “in a range of housing systems” and “where possible” because space allowances for expressing locomotion and comfort behaviours should be considered in a range of housing systems based on animal-based measurables.

5) Proposal of amendment to Article 7.Z.9. Flooring (insertion/~~deletion~~)

Article 7.Z.9.

Flooring

~~The flooring for the birds should be easy to clean and disinfect and not cause harm or damage to them.~~

The slope~~,~~ ~~and~~ design and construction of the floor should allow ~~birds~~ pullets and hens to express normal locomotory~~ion~~ and comfort behaviours. The floors should provide adequate support ~~the birds~~ ~~adequately~~, prevent injuries, entrapments and ensure good health and that manure does not contaminate other ~~birds~~ pullets and hens. Changes of flooring types from pullet to layer housing should be avoided. The flooring should be easy to clean and disinfect and should not cause harm.

~~The provision of loose and dry litter material is desirable to encourage dust bathing and foraging by pullets and hens. When litter is provided it should be managed to minimise any detrimental effects on welfare and health.~~ When litter is provided, it ~~Litter~~ should be managed to remain dry and friable, ~~replaced or~~ adequately treated or replaced when required to prevent *diseases* and minimise any detrimental effects on welfare~~, *infections* and *infestations*~~.

Animal~~Outcome~~-based measurables include: comfort behaviour, dust bathing, foot problems, foraging activity, incidence of diseases*, infections* and *infestations*, injury rates and severity, locomotory~~ion~~, performance, plumage condition, resting and sleeping, incidence of diseases, *infections* and *infestations*.

Rationale:

It was reported that litter may cause respiratory diseases [Madelin and Wathes,1989] , when managed inadequately, it may cause increase of infestation(coccidiosis and red mites(Demanyssus gallinae)) and bacterial deseases [Lay DC.et al.2011; Fossum O. et al.,2009], as well as pecking of litter may be replaced by other foraging activities [Shimmura et al.,2008].

Consideration should be given to the possibility of increased use of pesticides or antimicrobiral substances when infection or infestation of parasites and bacterial diseases increase.

Therefore, provision of litter is not appropriate in all cases and Japan proposes reversion to ‘When litter is provided,’.

(references)

Madelin and Wathes, 1989: Air hygiene in a broiler house: Comparison of deep litter with raised netting floors. : British Poultry Science Volume 30: 23-37

Lay DC.et al., 2011: Hen welfare in different housing systems. : Poultry Science 90: 278-294

Fossum O.et al., 2009: Causes of mortality in laying hens in different housing systems in 2001 to 2004. Acta Vet scand.;51:3

Tsuyoshi Shimmura.et al.,2008:Form but not frequency of beak use by hens is changed by housing system; Appl.Animal.Behaviour.Science 115.:44-54

6) Proposal of amendment to Article 7.Z.10. Dust bathing areas (insertion/~~deletion~~)

Article 7.Z.10.

Dust bathing areas

The provision of friable, dry litter material is desirable to encourage dust bathing by pullets and hens.

~~When d~~D~~When d~~D~~ust bathing areas ~~are offered, they~~ are offered, they should be ~~provide suitable friable materials,~~ designed and positioned to encourage dust bathing, allow synchronised behaviour, prevent undue competition and not cause damage or injuries. Dust bathing areas should be easy to inspect and maintain ~~[Lentfer et al.,2011]~~[Weeks and Nicol, 2006].

Animal~~Outcome~~-based measurables include: dust bathing, injury rate and severity, plumage condition, spatial distribution, incidence of diseases, infections and infestations.

Rationale and comments:

It was reported that litter may cause respiratory diseases [Madelin and Wathes,1989] , when managed inadequately, it may cause an increase of infestation(coccidiosis and red mites(Demanyssus gallinae)) and bacterial deseases [Lay DC.et al.2011 : Fossum O. et al.,2009]. It was also reported that the relation of sham dusting bathing and stress was not clear [Olson and Keeling, 2005] and sham dusting bathing may be alternative with dusting bathing. [Lindberg and Nicol, 1997].

Consideration should be given to the possibility of increased use of pesticides or antimicrobiral substances when infection or infestation of parasites and bacterial diseases increase.

Therefore, to make clear that provision of litter is not always necessary in this Article, Japan proposes reversion to ‘When dust bathing areas are offered’.

(references)

Madelin and Wathes, 1989: Air hygiene in a broiler house: Comparison of deep litter with raised netting floors. : British Poultry Science Volume 30: 23-37

Lay DC.et al., 2011: Hen welfare in different housing systems. : Poultry Science 90: 278-294

Fossum O.et al., 2009: Causes of mortality in laying hens in different housing systems in 2001 to 2004. Acta Vet scand.;51:3

Olsson, I. A. S., and L. J. Keeling. 2005. Why in earth? Dustbathing behaviour in jungle and domestic fowl reviewed from a Tinbergian and animal welfare perspective. Appl. Anim. Behav. Sci. 93:259–282.

Lindberg, A. C., and C. J. Nicol. 1997. Dustbathing in modified battery cages: Is sham dustbathing an adequate substitute? Appl. Anim. Behav. Sci. 55:113–128.

7) Proposal of amendment to Article 7.Z.11. Foraging areas (insertion/~~deletion~~)

Article 7.Z.11.

Foraging areas

The provision of friable, dry litter material is desirable to encourage foraging activity by pullets and hens.

~~When f~~FWhen f~~F~~oraging areas ~~are offered, they~~ are offered, they should provide suitable materials, and be designed and positioned to encourage foraging activity, allow synchronised behaviour, prevent undue competition and not cause damage or injuries. Foraging areas should be easy to inspect and maintain ~~clean~~.

Animal~~Outcome~~-based measurables include: foraging activity, injurious feather pecking and cannibalism, injury rate and severity, spatial distribution, incidence of diseases, *infections* and *infestations*.

Rationale and comments:

It was reported that litter may cause respiratory diseases [Madelin and Wathes,1989] , when managed inadequately, it may cause an increase of infestation and bacterial deseases(coccidiosis and red mites(Demanyssus gallinae)) [Lay DC.et al.2011 : Fossum O. et al.,2009], as well as pecking of litter may be replaced by other foraging activities [Shimmura et al.,2008].

Consideration should be given to the possibility of increased use of pesticides or antimicrobiral substances when infection or infestation of parasites and bacterial diseases increase.

Therefore, to make clear that provision of litter is not always necessary in this Article, Japan proposes reversion to ‘When foraging areas are offered’.

(references)

Madelin and Wathes, 1989: Air hygiene in a broiler house: Comparison of deep litter with raised netting floors. : British Poultry Science Volume 30: 23-37

Lay DC.et al., 2011: Hen welfare in different housing systems. : Poultry Science 90: 278-294

Fossum O.et al., 2009: Causes of mortality in laying hens in different housing systems in 2001 to 2004. Acta Vet scand.;51:3

Tsuyoshi Shimmura.et al.,2008:Form but not frequency of beak use by hens is changed by housing system; Appl.Animal.Behaviour.Science 115.:44-54

8) Proposal of amendment to Article 7.Z.12. Nesting areas (insertion/~~deletion~~)

Article 7.Z.12.

Nesting area

When nNWhen nNesting areas are offered ~~should be provided are offered, they and should~~, they should be built of suitable materials, designed and positioned to encourage nesting, prevent undue competition and not cause damage or injuries. Nesting areas should be easy to inspect, clean and maintain~~disinfect~~.

Animal-based measurables include: injurious feather pecking and cannibalism, injury rate and severity, nesting, performance, (mis-laid or floor eggs), spatial distribution.

Animal~~Outcome~~-based measurables include: injurious feather pecking and cannibalism, injury rate and severity, nesting, performance, (mis-laid or floor eggs), spatial distribution, incidence of diseases, *infections* and *infestations*.

Rationale and comments:

According to the report of the Code Commission, the reasons of above changes were “some editorial changes in the first paragraph to ensure consistency with the terminology used in other animal welfare chapters of the Terrestrial Code”. However, there is no similar sentence which restricts production system specifically in other animal welfare chapters. This changes are not harmonised in guiding principle for animal welfare(Article 7.1.2) that is “*8) That equivalent outcomes based on performance criteria, rather than identical systems based on design criteria, be the basis for comparison of animal welfare standards and recommendations* “.

Japan therefore propose to revise “Nesting areas should be provided” to the first draft, ”When nesting areas are offered, they should be….”.

In addition, a stipulation that “Nesting areas should be provided” is not appropriate because of some scientific knowledge as follows.

Using enriched cage is assumed in case of setting nesting area in cage. Percentage of cracked and dirty eggs in enriched cages (whitch has nesting area) are higher than that in conventional cages [E.E.Onbasilar.,et al,2015; Guesdon and Faure, 2004] . It is prerequisite not to compromise food safety when management and husbandry systems taking into account animal welfare are implemented. Especially, in a region with wet climates where bacteria are easy to propagate, hygiene management of eggs is crucially important. It was also reported that the mortality rate due to cloacal cannibalism is higher in enriched cages than that in conventional cages［Yilmaz Dikmen, 2016］. Therefore, the stipulation that “Nesting areas should be provided” is not appropriate before establishing production method not to increase cracked eggs, dirty eggs and

cloacal cannibalism in enriched cages.

Providing structure such as nest and perches will result in increase of hot bed of infestations with red mite (Dremanyssus gallinae). [Maurer. et al.,1993; A Sigognault F. et al., 2017; Hoglund. et al.,1995; Drakley and Walker,2002; Meyer-Kuhling. et al.,2007]. Red mite directly kills hens, is a vector of poultry pathogens, and causes nastiness for workers.

It was reported that strain differences affect the pre-laying behaviour [Mills,A.D.et al.,1985].

In addition, in free range production system, it is observed that fight, injuries and crushing death as a result of birds' gathering in few numbers of nest boxes even when sufficient numbers of nest boxes are installed. Therefore, further research is required in order to determine optimal conditions for installation of nesting boxes/areas.

It is assumed that providing structures such as nest may allow feces accumulated thus causes increase of coccidioides as well as infestation of red mites. Consideration should be given to the possibility of increased use of pesticides or antimicrobiral substances when infection or infestation of parasites and bacterial diseases increase.

The above points suggest that it is necessary to decide on production system and design taking account of various factors. Installation of nesting areas may be resulted in compromising animal health and food safety of produced eggs in some cases. In such circumstances, options not to offer nesting areas and/or perches should be accepted.

(references)

E.E.Onbaslar,2015: Production performance, use of nest box, and external appearance of two strains of laying hens kept in conventional and enriched cages. : Poultry Science 94:559-564

Guesdon, V. and J. M. Faure, 2004: Laying performance and egg quality in hens kept in standard or furnished cages. Animal Research, 53: 45-57.

Yilmaz Dikmen, B., A. Ipek, U. Sahan, M. Petek, and A. Sozeu, 2016. Egg production and welfare of laying hens kept in different housing systems (conventional enriched cage, and free range). Poultry Science, 95:1564-1572.

Maurer, V., J. Baumgartner, M. Bieri, and D. W. Folsch. 1993. The occurrence of the chicken mite Dermanyssus gallinae (Acari: Dermanyssidae) in Swiss poultry houses. Mitt. Schweiz. Entomol.Ges. 66:87–97.

Sigognault Flochlay A.et al., 2017: Poultry red mite(Dermanyssus gallinae) infestation: a broad impact parasitological disease that still remains a significant challenge for the egg-laying industry in Europe. : Parasites & Vectors 10:357

Hoglund.et al., 1995: Prevalence of the poultry red mite, Dermanyssus gallinae, in different types of production systems for egg layers in Sweden. : Poultry Science 74:1793-8

Drakley, C., and A. Walker. 2002. Monitoring of red mite habitat preference and distribution in a barn egg production system. Br. Poult. Sci. 43:553–554.

Meyer-Kuhling, B., J. Heine, J. Muller-Lindloff, and K. Pfister. 2007. Epidemiology of Dermanyssus gallinae and acaricidal efficacy of phoxim 50% in alternative housing systems during the laying periods of hens. Parasitol. Res. 101:S1–S12.

A.D.Mills. et al., 1985: Genetic analysis of strain differences in pre-laying behavior in battery cages: British Poultry Science,26: 187-197

9) Proposal of amendment to Article 7.Z.13. Perches (insertion/~~deletion~~)

Article 7.Z.13.

Perches

When ~~When p~~Pperches are offered ~~should be provided~~ ~~are~~ ~~offered~~, ~~they~~ ~~and~~ ~~should~~ they should be built of suitable materials, designed, elevated and positioned to encourage perching for all pullets and hens, to prevent keel bone deformation or, foot problems or other harms, and to maintain stability ~~of the birds~~ during perching. In the absence of designated perches, platforms, grids and slats that are perceived by the pullets and hens ~~birds~~ as elevated and that do not cause damage or injuries, may be a suitable alternative. Perches or their alternatives should be easy to clean and maintain~~,disinfect~~ and positioned to minimise faecal fouling [Hester, 2014; EFSA, 2015].

~~Perch elevation should be carefully considered to minimise injurious feather pecking, cannibalism, keel deformities and fractures.~~

Animal~~Outcome~~-based measurables include: foot problems, injurious feather pecking and cannibalism, injury rate and severity, perching, plumage condition, resting and sleeping, spatial distribution, incidence of diseases, *infections* and *infestations.*

Rationale and comments:

According to the report of the Code Commission, the reasons of above changes were “some editorial changes in the first paragraph to ensure consistency with the terminology used in other animal welfare chapters of the Terrestrial Code”. However, there is no similar sentence which restricts production system specifically in other animal welfare chapters. This changes are not harmonised in guiding principle for animal welfare(Article 7.1.2) that is “*8) That equivalent outcomes based on performance criteria, rather than identical systems based on design criteria, be the basis for comparison of animal welfare standards and recommendations* “.

Japan therefore propose to revert “Perches should be provided” to the first draft ”When perches are offered, they should be….”.

In addition, a stipulation that “Perches should be provided” is not appropriate because of some scientific knowledge as follows.

Using enriched cage is assumed in case of setting perches in cage. Percentage of cracked and dirty eggs in enriched cages (whitch has nesting area) are higher than that in conventional cages [E.E.Onbasilar.,et al,2015; Tauson.R,1984; Guesdon and Faure, 2004] . It is prerequisite not to compromise food safety when management and husbandry systems taking into account animal welfare are implemented. Especially, in a region with wet climates where bacteria are easy to propagate, hygiene management of eggs is crucially important. It was also reported that the mortality rate due to cloacal

cannibalism is higher in enriched cages than that in conventional cages［Yilmaz Dikmen, 2016］. Therefore, the stipulation “Perches should be provided” is not appropriate before establishing a production method not to increase cracked eggs , dirty eggs and cloacal cannibalism in enriched cages.

Providing structure such as nest and perches will result in increase of hot bed of infestations with red mite (Dremanyssus gallinae). [Maurer. et al.,1993; A Sigognault F. et al., 2017; Hoglund. et al.,1995; Darley and Walker,2002; Meyer-Kuhling. et al.,2007]. Red mite directly kills hens, is a vector of poultry pathogens, and causes nastiness for workers.

It was reported that providing perches can increase the risk of accidents such as foot and leg fracture [Lay DC. et al.,2011 ; H.A.Elson et al.,2006; EFSA, 2015].

It was also reported that use of perch differed depends on strains. [Faure and Jones,1982]

Consideration should be given to the possibility of increased use of pesticides or antimicrobiral substances when infection or infestation of parasites and bacterial diseases increase.

The above points suggest that it is necessary to decide on production system and design taking account of various factors. Installation of nesting areas may be resulted in compromising animal health and food safety of produced eggs in some cases. In such circumstances, options not to offer nesting areas and/or perches should be accepted.

(references)

E.E.Onbaslar,2015: Production performance, use of nest box, and external appearance of two strains of laying hens kept in conventional and enriched cages. : Poultry Science 94:559-564

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10)Proposal of amendment to Article 7.Z.14. Ourdoor areas (insertion/~~deletion~~)

Article 7.Z.14.

Outdoor areas

Pullets and hens can be given access to outdoor areas ~~as soon as~~ when they have sufficient feather cover and ~~are old enough to~~ can range safely. In outdoor systems, there should be sufficient appropriately designed ~~exit areas~~ openings to allow them to leave and re-enter the poultry house freely.

Management of outdoor areas is important. Land and pasture management measures should be taken to reduce the risk of birds becoming infected by pathogenic agents, infested by parasites or being injured. This might include limiting the stocking density or using several pieces of land consecutively in rotation.

Outdoor areas should be located on well-drained ground and managed to minimise ~~swampy conditions~~ standing water and mud. The outdoor area should be able to contain the Pullets and hens ~~birds~~ and prevent them escaping. Outdoor areas should allow pullets and hens to feel safe outdoors and be encouraged to optimise utilisation of the range, while mitigating predation and disease risks [Gilani et al., 2014; Hegelund et al., 2005; Nagle and Glatz, 2012]. Hens should be habituated early to the outdoor area [Rodriguez–Aurrekoetxea and Estevez, 2016]. Outdoor areas should provide shelter for the birds and be free from ~~poisonous~~ harmful plants and contaminants.

Animal~~Outcome~~-based measurables include: fear behaviour, foot problems, foraging activity, incidence of diseases, injury rate and severity, locomotory~~ion~~ and comfort behaviours, morbidity rate, mortality rate, infestations, performance, plumage condition, social behaviour, spatial distribution, thermoregulatory behaviour, vocalisation.

Rationale and comments:

In order to improve clarity, Japan proposes to insert ‘In outdoor systems’.

11) Proposal of amendment to Article 7.Z.19. Prevention and control of injurious feather pecking and cannibalism (insertion/~~deletion~~)

Article 7.Z.19.

Prevention and control of injurious feather pecking and cannibalism

Injurious feather pecking and cannibalism are challenges in pullet and hen production.

Management methods that may reduce the risk of occurrence include:

–managing light in rearing and lay [Nicol *et al.*, 2013; van Niekerk *et al.*, 2013],

–choosing genetics ~~strain~~ with a low propensity to injurious feather pecking [Craig and Muir, 1996; Kjaer and Hocking, 2004],

–influencing age of onset of lay [Green *et al.*, 2010],

–providing foraging or other manipulable materials in rearing and lay [Huber-Eicher and Wechsler, 1998; de Jong *et al.*, 2010; Daigle *et al.*, 2014],

–adapting diet and form of feed in rearing and lay [Lambton *et al.*, 2010],

~~– reducing stocking density [Zimmerman et al.,2006];~~

– reducing group size in rearing and lay [Bilcik and Keeling, 1999],

–providing elevated perches in rearing and lay [Green *et al.*, 2010],

– treating beaks in chicks [Gentle and Hughes, 1997], especially by using pain-less ~~new non-invasive~~ beak treatments ~~that are being developed~~,

–minimising fear-related stimuli [Uitdehaag K. A. *et al.*, 2009].

~~–introducing males [Bestman and Wagenaar,2003]~~

Management methods to control the occurrence include the above list, where applicable, and prompt removal of affected pullets and hens~~birds~~ to a hospital area or euthanasia.

If these management strategies fail, therapeutic beak treatment ~~trimming~~ ~~is the last resort.~~ may be considered as a final course of action.

Animal~~Outcome~~-based measurables include: injurious feather pecking and cannibalism, injury rate and severity, mortality and culling rate, plumage condition, vocalisation.

Rationale and comments:

Japan proposes to use the term ‘pain-less’ instead of ‘new non-invasive’ since all current methods for beak treatments are more or less invasive. The term of ‘non-invasive’ could not correct.

Japan proposes to delete ‘that are being developed’ since it is ambiguous expression.
Japan considers that the term of ‘pain-less beak treatments’ is more general and clearer.
It also covers undiscovered, non-aggressive techniques.

12) Proposal of amendment to Article 7.Z.21. Painful interventions (insertion/~~deletion~~)

Article 7.Z.21.

Painful interventions

Painful interventions, such as beak treatment~~trimming~~, should not be practised unless ~~absolutely~~ necessary and pain mitigation interventions should be used. Beak trimming at a mature age can cause chronic pain. ~~Other mutilations (e.g. dubbing and toe trimming) should not be performed in pullets and hens.~~ Pain-~~free~~ less alternatives should be favoured ~~are preferred~~. If preventive beak treatment~~trimming~~ is required, it should be carried out ~~by trained and skilled personnel~~ at the earliest age possible and care should be taken to remove the minimum amount of beak necessary using a method, which minimises pain and controls bleeding. ~~Current methods include infrared treatment or hot blade cutting.~~ If management strategies to control injurious feather pecking and cannibalism fail, therapeutic beak treatment may be considered as a final course of action [Gentle et al., 1991; Marchand-Forde et al., 2008; Marchand-Forde et al., 2010; McKeegan and Philbey, 2012; Freire et al., 2011; Glatz et al., 1998]. Other mutilations (e.g. dubbing and toe trimming) should not be performed in pullets and hens.

~~Beak trimming at a mature age can cause chronic pain. If therapeutic beak trimming is required, at whatever age, it should be carried out by trained and skilled personnel and care should be taken to remove the minimum amount of beak necessary using a method which minimises pain and controls bleeding.~~

Animal~~Outcome~~-based measurables include: feeding and drinking behaviour and foraging activity, ~~feeding~~, injurious feather pecking and cannibalism, locomotory and comfort behaviours, mortality rate, morbidity rate, performance, plumage condition, vocalisations.

Rationale and comments:

Japan proposes to use the term ‘pain-less’ instead of ‘pain-free’ since all current methods for beak trimming involves a certain amount of pain, so the term ‘pain-free’ could be considered not correct.

4. CHAPTER 8.14. INFECTION WITH RABIES VIRUS

1) Proposal of comments on Article 8.14.5. (Highlight with blue: See Comments)

Article 8.14.5.

Recommendations for importation of dogs, cats and ferrets from countries or zones ~~considered~~ infected with rabies virus

[…]

Veterinary Authorities should require the presentation of an *international veterinary certificate* complying with the model of Chapter 5.11. attesting that the animals:

1) showed no clinical sign of rabies the day prior to or on the day of shipment;

2) were permanently identified and their identification number stated in the *certificate*;

3) and either:

a) were vaccinated or revaccinated not more than 12 months prior to shipment in accordance with the recommendations of the manufacturer. ~~The~~ with a vaccine ~~should have been~~ that was produced ~~and used~~ in accordance with the *Terrestrial Manual*. ~~and~~ They were subjected not less than ~~1~~ 3 one month~~s~~ and not more than 12 months ~~prior to shipment~~ after the last *vaccination* to an antibody titration test as prescribed in the *Terrestrial Manual* with a positive result of at least 0.5IU/ml;

OR

b) were kept in a *quarantine station* for six months prior to export.

[…]

Comments:

The current provision stipulates that the antibody titration test result is valid for 12 months, and before shipment, we have to wait for at least 3 months after the testing. The rationale for this provision is that risk of being infected with rabies virus could be considered to be negligible if a dog with a result of 0.5IU/ml or more does not present any symptoms of rabies for at least 3 months before shipment.

However, the revised article proposed in the September 2018 report requires vaccination of animals not more than 12 month prior to shipment and also requires an antibody titration test not less than one month and not more than 12 month after the last vaccination. As a result, “minimum waiting period” prior to shipment after antibody titration test has been completely removed. Japan requests the rational for this

modification.

If rational is not provided, or the provided rationale is scientifically not sufficient, Japan insists to retain minimum waiting period in order to maintain current level of protection.

5. CHAPTER 10.4. INFECTION WITH HIGH PATHOGENICITY AVIAN INFLUENZA VIRUSES

1) Proposal of amendment and comments on Article 10.4.1. and 10.4.30.quater(New article) (insertion/~~deletion~~)

Article 10.4.1.

General provisions

[…]

2) For the purposes of the *Terrestrial Code*:

a) […]

c) *Poultry* means all domesticated birds used for the production of *meat* or eggs for consumption, for the production of other commercial products, or for breeding these categories of birds, as well as fighting cocks used for any purpose. All birds used for restocking supplies of game are considered *poultry*. If birds are kept in a single household and their products are only used in the same household and have no epidemiological link with poultry, these birds are not considered *poultry*.

Birds that are kept in captivity for any reason other than those referred to in the preceding paragraph,including those that are kept for shows, races, exhibitions, competitions or for breeding or selling these categories of birds as well as pet birds, are not considered *poultry*;

d) […]

3) In accordance with Chapter 1.1., a sudden and unexpected change in the distribution, host range, or increase in incidence or virulence of, or morbidity or mortality caused by avian influenza viruses is notifiable to the OIE, as well as zoonotic avian influenza viruses. Occurrences of influenza A viruses of high pathogenicity in birds other than poultry, including wild birds, are notifiable. Infections of poultry by low pathogenicity influenza virus of H5 and H7 subtypes should be notifiable since they have ability to mutate into high pathogenisity viruses. Infections of birds kept in an single household for self-consumption as defined in 2) c) by low pathogenicity influenza virus of H5 and H7 subtypes should be notifiable in order to prepare for occurance of zoonotic avian influenza. ~~Six-monthly reports on the presence of avian influenza viruses in a country or zone should include low pathogenicity viruses of H5~~

~~and H7 subtypes.~~

A *notification* of *infection* with influenza A viruses of high pathogenicity in birds other than *poultry*, including *wild* birds, or of low pathogenicity avian influenza viruses in *poultry* does not affect the status of the country or *zone*. A notification of A Member Country should not impose bans on the trade in *poultry* and *poultry commodities* in response to such notification, or to other information on the presence of any influenza A virus in birds other than *poultry*, including *wild* birds.

[…]

Article 10.4.30.quater

Surveillance of dometic birds other than poultry

Birds kept in a single household for self-consumption as defined in 10.4.1.2 c) should be subjected for passive surveillance reguraly. Any unusual mortality events and morbidity should be reported to the local Veterinary Authority for investigation.

Monitoring the presence of H5 and H7 low pathogenicity avian influenza in birds kept in a single household for self-consumption as defined in 10.4.1.2.c) should be conducted for early detection and response to zoonotic avian influenza and mutation to high pathogenicity influenza.

Monitoring the presence of H5 and H7 low pathogenicity avian influenza viruses can be achieved through the combination of clinical investigations where *infection* is suspected through changes in production indicators such as reductions in egg production or *feed* and water intake and active serological and virological *surveillance*.

Rationale and comments:

Japan acknowledges that amended chapter takes into account a possibility of mutation of law pathogenicity H5 and H7 avian influenza viruses into high pathogenicity viruses and emphasizing importance of LPAI monitoring in the context of HPAI management. However, in the amended chapter, LPAI is not notifiable and outbreaks of LPAI are not required to be reported as immediate notification.

Japan believes sharing information of LPAI outbreak immediately by notification is meaningful in assessing the world's avian influenza situation on a real-time basis and be effectively prepared for future HPAI outbreaks in all member countries. In addition, occurrence of LPAI should be monitored and the information should be shared from

One-Health’s standpoint. At the same time, Japan understands the difference of risk between HPAI and LPAI and measures with regard to domestic control and/or international trade should be taken accordingly. Therefore, Japan proposes amendments as above to retain notification of LPAI in poultry.

Regarding the definition of poultry, Japan believes if excluding birds kept in a single household for self-consumption from definition of poultry, such birds should be clearly separated from any other poultry flock. Such separation includes proving no epidemiological links with commercial poultry production such as no labours are shared between commercial poultry farms and the household.

Furthermore, Japan believes backyard poultry should be monitored for HPAI and H5/H7 LPAI even if the birds are kept in a single household in terms of zoonotic implication as well as controlling HPAI in a community. On the other hand, Japan understands that when backyard flock was kept in a single household and their products were consumed in a same household, and a backyard flock were effectively separated from any other poultry flock, such birds may not become source for HAPI in commercial poultry. Thus Japan understands occurrence of HPAI or H5/H7 LPAI outbreak in such birds do not affect free status.

Therefore, Japan proposes amendments as above so as to retain notification in birds kept in a single household for self-consumption and to specify avian influenza monitoring for such birds.

Overall, Japan believes the revision of the Chapter requires further discussion before reaching conclusion.

2) Proposal of amendment and comments on Article 10.4.6, 10.4.9. and 10.4.12. (insertion/~~deletion~~)

Article 10.4.6.

Recommendations for the importation of live birds other than poultry

[…]

3) a statistically valid sample of the birds, selected in accordance with the provisions of Article 10.4.29., was subjected to a diagnostic test ~~for influenza A viruses~~ to demostrate freedom from infection with influenza A viruses of H5 and H7 subtypes within 14 days prior to shipment ~~with negative results for H5 and H7 which would be considered avian influenza in *poultry*~~;

[…]

Article 10.4.9.

Recommendations for the importation of day-old live birds other than poultry

[…]

3) the parent *flock* birds were subjected to a diagnostic test ~~for influenza A viruses~~ to demostrate freedom from infection with influenza A viruses of H5 and H7 subtypes at the time of the collection of the eggs, ~~with negative results for H5 and H7 which would be considered avian influenza in *poultry*~~;

[…]

Article 10.4.12.

Recommendations for the importation of hatching eggs from birds other than poultry

Regardless of the ~~avian influenza~~ status of the country of origin, *Veterinary Authorities* should require the presentation of an *international veterinary certificate* attesting that:

1) a statistically valid sample of birds from the parent *flock* ~~birds were~~ was subjected to a diagnostic test to demostrate freedom from infection with influenza A viruses of H5 and H7 subtypes ~~for influenza A viruses seven~~ 14 days prior to and at the time of the collection of the eggs~~, with negative results for H5 and H7 to demonstrate freedom from *infection* with a virus which would be considered avian influenza in *poultry*~~;

[…]

Rationale and comments:

The test should be conducted in order to prove freedom from infection with influenza A viruses with subtype H5 and H7 and Japan proposes amendments as above for clarification. For example, it may be difficult to prove free from H5 or H7 because it is difficult to know an appropriate antigen to detect serotype specific antibody by serological assay alone, or in case for day-old chicks, previous infection of parent flock may affect the result of serological assay. Therefore, appropriate combination of diagnostic tests should be selected in order to demonstrate freedom from infection.

6. CHAPTER 15.1. INFECTION WITH AFRICAN SWINE FEVER VIRUS

1) Comments to Article 15.1.2. and Articles 15.1.3. (Highlight with blue: See Comments)

Article 15.1.2.

General criteria for the determination of the ASF status of a country, zone or compartment

[...]

7) the domestic and captive wild pig populations are separated by appropriate biosecurity, effectively implemented and supervised, from the wild and feral pig and African wild suid populations, based on the assessed likelihood of spread within the wild and feral pig and African wild suid populations, and surveillance in accordance with Article 15.1.31.; they are also protected from Ornithodoros ticks where relevant.

Article 15.1.3.

Country or zone free from ASF

[...]

3. Freedom in domestic and captive wild pigs

A country or *zone* which does not meet the conditions of point 1) or 2) above, including *cases* of *infection* with ASFV in *feral* or *wild* pigs, may be considered free from ASF in domestic and *captive wild* pigs when it complies with all the criteria of Article 15.1.2., especially point 7), and when:

a) *surveillance* in accordance with Articles 15.1.27. to 15.1.32. has been in place for the past three years;

b) there has been no *case* of *infection* with ASFV in domestic or *captive wild* pigs during the past three years; this period can be reduced to 12 months when the *surveillance* has demonstrated no evidence of presence or involvement of *Ornithodoros* ticks;

c) ~~pigs and~~ pig *commodities* are imported in accordance with Articles 15.1.7. to 15.1.20.

[...]

Comments:

As already commented before, Japan understands that when the domestic and feral pig populations are separated by appropriate biosecurity, freedom in domestic and captive wild pigs can be achieved even if cases of infection with ASFV in feral or wild pigs are observed. In order to apply this article in declaration of freedom or international trade, it is essential to have better understanding how an appropriate biosecurity could be achieved. We recognize that in some countries in Europe where ASF outbreaks are occurred, introduction of ASF in domestic pig population has been prevented although ASF case has been reported in wild boar population while other countries allowed

introduction into domestic population.
Therefore, Japan expects the OIE to provide technical guidance how to achieve an appropriate biosecurity especially in terms of effective separation of domestic pig population from wild pig populations learned from countries experienced ASF.

7. CHAPTER 15.2. INFECTION WITH CLASSICAL SWINE FEVER VIRUS

1) Comments to Article 15.2.22. and 15.2.23. (Highlight with blue: See Comments)

Article 15.2.22.

Procedures for the inactivation of ~~the classical swine fever virus~~ CSFV in swill

For the inactivation of CSFV in swill, one of the following procedures should be used:

1) the swill ~~should be~~ is maintained at a temperature of at least 90°C for at least 60 minutes, with continuous stirring; or

2) the swill ~~should be~~ is maintained at a temperature of at least 121°C for at least 10 minutes at an absolute pressure of 3 bar~~.~~, or

3) the swill is subjected to an equivalent treatment that has been demonstrated to inactivate CSFV.

Article 15.2.23.

Procedures for the inactivation of ~~the classical swine fever virus~~ CSFV in meat

For the inactivation of CSFV in *meat*, one of the following procedures should be used:

1. Heat treatment

   Meat should be subjected to ~~one of~~ the following treatments:

   ~~*a)* heat treatment in a hermetically sealed container with a F0 value of 3.00 or more;~~

   ~~*b)*~~ heat treatment for at least 30 minutes at a minimum temperature of 70°C, which should be reached throughout the *meat*.

   [...]

Comments:

Although it is not directly related to the proposed amendments on CSF chapter, Japan would like to mention that there are discrepancies in trade requirements on same commodities in different disease specific chapters. For example, these discrepancies are observed for articles on importation of skins and trophies among Chapters on ASF, CSF and FMD. Japan considers that, in order to facilitate trade activities, those requirements should be harmonized when scientifically warranted. Japan requests the OIE to review chapters and solve such discrepancies.

These discrepancies are observed within a chapter as well. For example, the Article 15.2.22 provides procedures for inactivation of CSFV in swill which requires to be maintained at a temperature of at least 90°C for at least 60 minutes, with continuous stirring. On the other hand, the Article 15.2.23 provides procedures for the inactivation of CSFV in meat which requires heat treatment for at least 30 minutes at a minimum temperature of 70°C throughout the meat. Japan requests for scientific rational why heat treatment required for swill is more strict than that of meat itself.