

*Import Risk Analysis:*  
Budgerigars (*Melopsittacus  
undulatus*) from the United  
Kingdom

*REVIEW OF SUBMISSIONS*

28 May 2009

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Import Risk Analysis: Budgerigars (*Melopsittacus undulatus*) from the United Kingdom

*REVIEW OF SUBMISSIONS*

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Approved for general release

A handwritten signature in black ink that reads 'Christine Reed'. The signature is written in a cursive, flowing style.

Christine Reed  
Manager, Risk Analysis  
MAF Biosecurity New Zealand

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## Executive Summary

MAF Biosecurity New Zealand released the draft document *Import Risk Analysis: Budgerigars (Melopsittacus undulatus) from the United Kingdom* for public consultation on 19 December 2008. The closing date for public submissions on this document was 27 February 2009.

Based on comments made by stakeholders in response to the published draft import risk analysis, this review of submissions document makes recommendations for changes required to amend the draft document to a final risk analysis.

The next step in this process will be for the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ to draft an import health standard alongside a document that outlines the rationale for the preferred risk management measures. These documents will then be published for a six-week period of public consultation.

As a result of comments made in these submissions, it is recommended that the following changes should be made in the final risk analysis:

- Errors in the executive summary should be corrected: Rotavirus and *Coxiella burnetti* (Q fever) should be removed and psittacine reovirus should be added to the list of hazards in the executive summary.
- Table 1 should be amended to reflect that pigeon circovirus has been found in New Zealand.
- Table 1 should be amended to indicate that an extensive review of literature revealed no reports of avian paramyxoviruses 4, 6, 7, 8, or 9 or coronavirus enteritis virus occurring in budgerigars.
- Table 1 should be amended to indicate that rotavirus was considered to be a preliminary hazard requiring further consideration.
- Section 9.1.4 (avian influenza virus epidemiology) should be amended as described in responses to points 2.3.17 and 2.3.18 of this review of submissions document.
- The references for Chapter 13 (proventricular dilatation disease) should be amended (see point 2.3.25).
- Comments from PIANZ regarding the consequences of feather mite (see point 2.3.31) should be included in Section 25.2.3 of the risk analysis.

# 1. Introduction

Risk analyses are carried out by MAF Biosecurity New Zealand under section 22 of the Biosecurity Act 1993, which lays out the requirements with regard to issuing Import Health Standards (IHSs) to effectively manage the risks associated with the importation of risk goods.

Draft risk analyses are written by the Risk Analysis Group and submitted to internal, interdepartmental, and external technical review before the draft risk analysis document is released for public consultation. The Risk Analysis Group of MAF Biosecurity New Zealand then reviews the submissions made by interested parties and produces a review of submissions document. The review of submissions identifies any matters in the draft risk analysis that need amending in the final risk analysis although the decision to implement these changes lies with an internal committee of MAF Biosecurity New Zealand. These documents inform the development of any resulting IHS by the Border Standards Group of MAF Biosecurity New Zealand for issuing under section 22 of the Biosecurity Act by the Director General of MAF on the recommendation of the relevant Chief Technical Officer (CTO).

Section 22(5) of the Biosecurity Act 1993 requires CTOs to have regard to the likelihood that organisms might be in the goods and the effects that these organisms are likely to have in New Zealand. Another requirement under section 22 is New Zealand's international obligations and of particular significance in this regard is the *Agreement on Sanitary & Phytosanitary Measures* (the "SPS Agreement") of the World Trade Organisation.

A key obligation under the SPS Agreement is that sanitary and phytosanitary measures must be based on scientific principles and maintained only while there is sufficient scientific evidence for their application. In practice, this means that unless MAF is using internationally agreed standards, all sanitary measures must be justified by a scientific analysis of the risks posed by the imported commodity. Therefore, risk analyses are by nature scientific documents, and they conform to an internationally recognised process that has been developed to ensure scientific objectivity and consistency.

MAF Biosecurity New Zealand released the draft document *Import Risk Analysis: Budgerigars (Melopsittacus undulatus) from the United Kingdom* for public consultation on 19 December 2008. Every step was taken to ensure that the risk analysis provided a reasoned and logical discussion, supported by references to scientific literature. The draft risk analysis was peer reviewed internally and externally and then sent for interdepartmental consultation. Relevant comments were incorporated at each stage of this review process. The closing date for public submissions on the risk analysis was 27 February 2009.

Seven submissions were received. Table 1 lists the submitters and the organisations they represent.

This document is MAF Biosecurity New Zealand's review of the submissions that were made by interested parties following the release of the draft risk analysis for public consultation. Public consultation on risk analyses is primarily on matters of scientific fact that affect the assessment of risk or the likely efficacy of any risk management options presented. For this reason, the review of submissions will answer issues of science surrounding likelihood, not possibility, of events occurring. Speculative comments and economic factors other than the

effects directly related to a potential hazard are beyond the scope of the risk analysis and these will not be addressed in this review of submissions.

**Table 1. Submitters and Organisations Represented**

Submitter	Organisation Represented/Location
Neil Christensen	Avivet Ltd
Phil Bell	Department of Conservation
Michael Brooks	Poultry Industry Association of New Zealand and Egg Producers Federation of New Zealand
Gerald Binks	N/A
May Evans	Southland Aviculture Society
Paul Dixon	Parrot Society of New Zealand
Gavin White	The Avicultural Society of New Zealand (Inc)

## 2. Review of Submissions

### 2.1 NEIL CHRISTENSEN, AVIVET LTD

- 2.1.1 The only point I wish to make is that in relation to Pigeon Circovirus, which in table 1, page 6 is noted as not being recorded in New Zealand. I sent a number of samples to South Africa for PCV testing. This testing was carried out with the permission of the Director of IDC. The results are attached, which indicate the presence of PCV in New Zealand. I intend to make arrangements for the publication of these results in due course.

**MAFBNZ response:** Noted. It is recommended that Table 1 be amended to reflect these results in the final version of the risk analysis published alongside this review of submissions.

However, as pigeon circovirus has not been described in budgerigars, this finding does not impact upon the conclusions of the risk analysis.

## 2.2 PHIL BELL, DEPARTMENT OF CONSERVATION

- 2.2.1 The executive summary states that a non-negligible risk was identified in the hazards Rotaviruses and Q fever. Yet in the chapter on each of those hazards, Rotaviruses are not even considered a potential hazard (page 52) and Q fever is not classified as a potential hazard, based on the risk of entry being negligible (page 63).

Further to this, the chapter on Psittacine Reovirus infection states that the risk estimation of importing this disease in budgies is non-negligible (page 43); yet Psittacine Reovirus infection is not on the list of non-negligible risks in the executive summary.

We assume these errors are simply oversights made while drafting the list for the executive summary.

**MAFBNZ response:** Noted. It is recommended that these oversights be corrected in the final version of the risk analysis published alongside this review of submissions document.

### 2.2.2 The Department's preferences are below.

APMV-1: Option 2 would be our preference, given the increased sensitivity of the testing undertaken after the 21 days incubation period of this disease.

Avian Influenza: Option 2 would be our preference, as it provides for the full incubation period (21 days) of the virus and the diagnostic testing would achieve a higher sensitivity and accuracy of results.

Pacheco's disease virus (Herpesvirus): Our preference would be option 2, particularly in light of the developments highlighted in the risk analysis stating that PCR testing of cloacal swabs is showing promise in detecting carriers of the virus.

Psittacine Pox Virus: Option 3 would be our preference, as the serological testing will be most likely to detect persistent carriers of the virus from within the quarantined birds. While we understand that bleeding the budgies can be difficult, we consider the risk of carriers of the virus is great enough that it warrants serological tests being included in the risk management measures.

Psittacine Reovirus infection: Our preference would be option 2. However we would like to see the addition of the sentence "Identification of reovirus infection will result in disqualification of all birds in the consignment", following the requirement that all dead birds from quarantine be submitted for a full post mortem examination.

Salmonella spp.: Our preference would be option 2; it gives a well-rounded assessment of the condition of the budgies with regard to Salmonella infection.

Protozoal Blood Parasites (Haematozoa): Option 3 would be our preference, as blood smears are able to identify all species of blood parasites and PCR is able to diagnose some of them to species level which would enable MAFBNZ to use their discretion about which birds to allow for importation.

Internal Parasites: Our preference would be option 3, as this option allows for the cleaning requirements and the anthelmintic treatments to be tested (via the faecal sample inspections) to prove freedom from the internal parasites.

External Parasites: Option 2 would be our preference, as it allows the treatment measures (cleaning and treatment with an insecticide) to be tested (with physical inspection) to prove freedom from the external parasites.

**MAFBNZ response:** Comments on the suitability of the options presented for risk management will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ when drafting any import health standards developed from this import risk analysis.

## 2.3 MICHAEL BROOKS, POULTRY INDUSTRY ASSOCIATION OF NEW ZEALAND AND EGG PRODUCERS FEDERATION OF NEW ZEALAND

- 2.3.1 Industry strongly believes therefore that where no specific evidence is available to support the conclusion that a disease does not occur in any given species, in the development of an IRA, Biosecurity New Zealand should err on the side of caution and require further consideration for the organism in question, unless there is sufficient additional information which supports a conclusion that the disease would not occur in the species in question.

**MAFBNZ response:** It is very difficult to prove that a risk does not exist. However, purely hypothetical risks should not be considered in an import risk analysis (Murray et al 2004).

The SPS Agreement requires that sanitary measures be based on either an international standard or a risk analysis that takes into account available scientific evidence. Under the SPS Agreement, if the available scientific evidence is insufficient, sanitary measures may only be applied to a commodity on the basis of available pertinent information although additional information may be sought to allow a more objective risk assessment within a reasonable period of time.

Budgerigars are widely agreed to be the most popular pet bird in the world and in New Zealand alone, about 100,000 of these birds are bred each year. Given this level of ownership, MAF considers it justifiable to suggest that significant pathogens associated with this species are likely to be documented in scientific literature. Therefore, where extensive literature reviews have been unable to identify specific agents associated with budgies, it is reasonable to conclude that agent should not be regarded as a preliminary hazard in this species.

- 2.3.2 ...it is unclear from the document whether there is only a single flock in the United Kingdom from which birds for export will be selected, although Industry believes that this is unlikely.

**MAFBNZ response:** As stated in Section 3 of the import risk analysis, the commodity for this import risk analysis was defined as domestic budgerigars (*Melopsittacus undulatus*) from single closed donor flocks, maintained indoors in the United Kingdom. Birds will be sourced only from flocks that are breeders of exhibition type budgerigars and are inspected regularly by the United Kingdom Department for Environment, Food, and Rural Affairs (DEFRA). The flocks will be maintained as closed flocks with minimum introduction of birds of certified health status that have been strictly quarantined. Birds from such flocks will not have contact with other birds by being taken to shows and exhibitions. The premises of the exporting flock will have suitable quarantine facilities which are inspected and certified by DEFRA as suitable for quarantine of birds to be exported to New Zealand.

Domestic budgerigars originating from any closed donor flock as described above would therefore be considered to be consistent with the commodity as defined in this analysis. The details surrounding these requirements will be further clarified when an import health standard is developed from this risk analysis.

2.3.3 Industry also notes that “flocks will be maintained as closed flocks with minimum introduction of birds of certified health status that have been strictly quarantined”. Industry notes that although the draft IRA relies on the fact that flocks are “closed”, no detail is provided in terms of the “strict quarantine” which will be applied before birds are introduced into “closed flocks”. Industry suggests that the requirements for quarantine should be clarified.

*MAFBNZ response:* Details of certification issues such as these will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ responsible for drafting any import health standards based on the findings of this risk analysis.

2.3.4 Industry suggests that the requirements for “closed flocks” must detail the additional precautions (over and above avoiding direct contact with other birds) needed to ensure the exclusion of avian diseases from the export flock. These should include but are not limited to a requirement to clean and sanitise any new equipment introduced into the facility housing the “closed flock”, the use of clean clothing when entering the facility and a minimum stand down period for anyone which has had contact with any other birds or livestock.

*MAFBNZ response:* Details of certification requirements will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ responsible for drafting any import health standards based on the findings of this risk analysis.

2.3.5 Industry notes the requirement that the premises of the exporting flock will have suitable quarantine facilities which are inspected and certified by DEFRA as suitable for quarantine of birds to be exported to New Zealand. Industry is unaware of the current facilities available to breeders of exhibition type budgerigars in the United Kingdom, but finds it odd that these facilities would each have on-site a quarantine facility which would meet export standards.

*MAFBNZ response:* Please see submission 3.4 which provides details of the quarantine facilities of a budgerigar breeder in the United Kingdom. As stated above, further details of certification requirements will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ responsible for drafting any import health standards based on the findings of this risk analysis

2.3.6 Industry notes that under the section headed Paramyxoviruses on page 5, Newcastle disease virus (avian paramyxovirus 1) is not considered to occur in the UK. Whilst Industry acknowledges that under the current OIE classification system virulent Newcastle disease is not present in the United Kingdom, the disease has occurred there in the past (DEFRA, 2006). Given the potential devastating impact which Newcastle disease could have on the New Zealand poultry industry and native bird population, industry believes that Newcastle disease warrants further consideration in the draft IRA with potential risk management options proposed in the draft IRA. However, Industry notes that Newcastle disease is indeed given further consideration in the draft IRA and therefore suggests that “requires further consideration” should be listed at “Yes” rather than “No”.

*MAFBNZ response:* The United Kingdom is currently considered free of Newcastle Disease as defined by the OIE, therefore virulent APMV-1 cannot be considered a

potential hazard in budgerigars sourced from there. The risk analysis notes that low virulence APMV-1 is recognised in the United Kingdom and this is further considered in Section 5 of the risk analysis.

As noted in Section 2, the risk analysis does not consider speculative events that could occur in the future and MAFBNZ has the flexibility to modify any IHS based on this risk analysis if future events make this appropriate.

- 2.3.7 Industry notes that no references are provided in the draft IRA for the conclusion that avian paramyxoviruses 4, 6, 7, 8 and 9 do not occur in budgerigars. Industry notes that for other hazards where information is lacking, a footnote stating “Extensive review of the literature revealed no reports of the agent occurring in budgerigars”. Industry suggests that if that is the case for avian paramyxoviruses 4, 6, 7, 8 and 9, the same footnote should be referenced.

**MAFBNZ response:** Noted. It is recommended that this be corrected in the final version of the risk analysis published alongside this review of submissions document.

- 2.3.8 The first section of the table on page 6 deals with Coronaviruses. Industry notes that there is no reference for the conclusion that coronavirus enteritis has not been recorded in budgerigars.

**MAFBNZ response:** A literature search has revealed no references to coronavirus enteritis in budgerigars. It is recommended that this be corrected in the final version of the risk analysis published alongside this review of submissions document.

- 2.3.9 The IRA states, under the section entitled Avian Pox viruses on page 6, that psittacine pox virus has not been recorded in budgerigars. However industry is aware of a reference published in Avian Diseases (Boosinger *et al.*, 1982) which suggests that psittacine pox has been recorded in budgerigars. Industry therefore requests that Biosecurity New Zealand review this.

**MAFBNZ response:** Boosinger et al (1982) states that avian pox virus has been isolated from a budgerigar (*Melopsittacus undulates*) and cites Sharma et al (1968) to support this claim. Sharma et al (1968) reported histological studies of a “pox-like” virus that was isolated from a “parakeet”. The evidence provided by this paper does not conclusively identify this agent as a pox virus and the species of origin is unclear given that the term “parakeet” is generally used to describe a number of small to medium sized parrot species with long tapered tail feathers. Furthermore, there have been no subsequent reports of psittacine pox virus in budgerigars over 40 years since this publication.

- 2.3.10 Under section 4 (Circoviruses) on page 6, it is concluded that pigeon circovirus has not been reported in budgerigars. Two references for this are given. Industry has reviewed that of Woods and Latimer (2003) and does not agree with the conclusion that this pathogen has not been identified in budgerigars. In fact, Woods and Latimer (2003) state "synonyms of circoviral disease in various avian genera, excluding chickens, have included psittacine beak and feather disease (Pbfd), feather and beak disease, French moult (budgerigars), black spot (canaries), and runting syndrome (geese)". These authors also state "A few spontaneous recoveries have been observed in budgerigars (*Melopsittacus undulatus*) ....".

**MAFBNZ response:** The comment cited above regarding the spontaneous recovery of budgerigars from circovirus infection refers to psittacine beak and feather disease virus, which the risk analysis acknowledges as being recorded in this species. Please also see 2.1.1 regarding the recognition of pigeon circovirus in New Zealand.

The aetiology of "French moult" is considered to be a mild form of Budgerigar Fledgling Disease virus (BFDV) (Krautwld et al 1989), recognised as a member of the polyomavirus genus. As discussed in MAFBNZ's *Import Risk Analysis: Passerine hatching eggs from the European Union* (Simpson 2006), there is serological evidence of avian polyomavirus in New Zealand and no evidence of species-specific types of polyomavirus have developed. Therefore, BFDV cannot be regarded as a potential hazard in this context.

- 2.3.11 The first section of the table on page 6 deals with bacteria. Industry notes that *Salmonella Gallinarum* is reported as not occurring in budgerigars. However, work published in 2004 (Anonymous) suggests that *Salmonella Gallinarum* has been reported in budgerigars and industry therefore requests that this conclusion is reviewed. Industry therefore also suggests that this pathogen requires further consideration in the draft IRA.

**MAFBNZ response:** Anonymous (2005) does claim that cases of fowl typhoid have been seen in budgerigars although the references cited in this publication do not appear to provide any evidence to support this claim. The current (12<sup>th</sup>) edition of *Diseases of Poultry* (Shivaprasad and Barrow 2008) states:

*Chickens are the natural hosts for both S. Pullorum and S. Gallinarum; however, naturally occurring outbreaks of Pullorum Disease and Fowl Typhoid have been described in turkeys, guinea fowl, quail, pheasants, sparrows and parrots. In addition, naturally occurring outbreaks of Pullorum Disease have been described in canaries and bullfinches, and Fowl Typhoid has been described in ring doves, ostriches and peafowl.*

Furthermore, the United Kingdom is currently free of Fowl Typhoid.

- 2.3.12 Industry notes that *Salmonella Enteritidis* is reported as occurring in New Zealand but not in poultry. However, no reference is given for this. Industry seeks clarification from Biosecurity New Zealand on this and suggests that if no reference can be included, this should be changed to "No".

**MAFBNZ response:** Public health surveillance data (see: [http://www.surv.esr.cri.nz/PDF\\_surveillance/ERL/HumSalm/2007/HumSalm2007.pdf](http://www.surv.esr.cri.nz/PDF_surveillance/ERL/HumSalm/2007/HumSalm2007.pdf)) demonstrates that in

2007 there were 151 isolates of *Salmonella* Enteritidis recovered from humans in New Zealand.

- 2.3.13 Industry also notes that this section does not consider antibiotic resistant strains of bacteria which may be present overseas but which are not present in New Zealand. The Industry would like to see these covered in the draft IRA.

**MAFBNZ response:** MAFBNZ considers it unlikely that budgerigar colonies will be subject to the necessary selection pressure required to promote the development and maintenance of antimicrobial resistance phenotypes not recognised in New Zealand. Furthermore, the contribution of any imported antimicrobial resistant organisms associated with live budgerigars is likely to be negligible when considered against the number of international travellers regularly arriving in New Zealand and the resistant organisms they might be carrying (Memish et al 2003).

- 2.3.14 Industry notes that given the increasing number of back yard poultry being kept in New Zealand, there is considerable opportunity for these back yard birds to be exposed to escaped budgerigars. Moreover, industry notes that the potential for contamination by indirect means has not been considered in either of these sections (*Section 5.2.2 and Section 7.2.2*).

**MAFBNZ response:** Section 5.2.2 (exposure assessment for APMV-1) states:

*Imported budgerigars are likely to be mixed with New Zealand birds in aviaries and at shows and the disease could be transmitted to budgerigars, other birds and ultimately to poultry flocks. In addition, although imported exhibition budgerigars are unlikely to be allowed to readily escape from captivity, and are unlikely to survive for any significant length of time if they do, escape always remains a possibility. During the time escaped birds survive in the “wild” they could transmit virus to wild and feral birds. Therefore the likelihood of exposure of New Zealand birds to the virus is considered to be non-negligible.*

Section 7.2.2 (exposure assessment for APMV-3) states:

*New Zealand captive birds are likely to be exposed to imported birds in aviaries or at shows. Escaped exhibition budgerigars will not survive for long outside temperature controlled indoor aviaries. Therefore wild birds could be exposed to escaped budgerigars only during the time they survive in the wild and the likelihood of exposure of New Zealand wild birds is low.*

Although indirect exposure is not explicitly considered in either of these sections, the conclusion of both paragraphs that there is a non-negligible likelihood of exposure would be unaltered by this.

- 2.3.15 Industry is in favour of the application of at least *Option 2* proposed in Section 5.3.1 (Options). However, industry would ideally prefer the application of *Option 4* as this would be consistent with the requirement for importers of poultry hatching eggs to import through a quarantine facility despite the fact that eggs are sourced from flocks which have been tested free of Newcastle disease. .

**MAFBNZ response:** Comments on the suitability of the options presented for risk management will be considered by the Animal Imports and Exports Section of the

Border Standards Directorate of MAFBNZ when drafting any import health standards developed from this import risk analysis.

- 2.3.16 The comment under Section 6.1.4 (Epidemiology) which states “Since budgerigars are unlikely to become infected with APMV-2 unless held in close proximity with passerine birds or infected turkeys, the entry assessment for budgerigars sourced from a single closed budgerigar donor flock is considered to be negligible” highlights the importance of defining what constitutes a “closed donor flock”. In addition this statement highlights the importance of having good biosecurity measures in place to prevent transmission of any pathogen via fomites, rather than simply as a result of direct contact between birds.

**MAFBNZ response:** Noted. Details of certification requirements for the donor flock will be determined by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ responsible for drafting any import health standards based on the findings of this risk analysis.

- 2.3.17 The penultimate sentence of the first paragraph of Section 9.1.4 (Epidemiology) states “According to the most recent OIE definition notifiable avian influenza includes both HPAI and LPAI strains of the H5 and H7 subtypes (see Section 11.1.2)”. Industry notes that the section in the code which refers to Avian Influenza is currently 10.4. Industry is therefore unclear whether or not the IRA is referring to the OIE Terrestrial Animal Health Code or an alternative document. In addition industry notes that notifiable avian influenza does not only include H5 and H7 subtypes, but any subtype of avian influenza which has an intravenous pathogenicity index (IVPI) greater than 1.2.

**MAFBNZ response:** The reference in the draft risk analysis to Section 11.1.2 is an error and should refer to Section 9.1.2 of the risk analysis. It is recommended that this be amended in the final version of the risk analysis published alongside this review of submissions document.

Section 9.1.2 of the import risk analysis reproduces the OIE definition of notifiable avian influenza, i.e.:

*For the purposes of international trade, avian influenza in its notifiable form (NAI) is defined as an infection of poultry caused by any influenza A virus of the H5 or H7 subtypes or by any AI virus with an intravenous pathogenicity index (IVPI) greater than 1.2 (or as an alternative at least 75% mortality) as described below. NAI viruses can be divided into highly pathogenic notifiable avian influenza (HPNAI) and low pathogenicity notifiable avian influenza (LPNAI):*

- a. HPNAI viruses have an IVPI in 6-week-old chickens greater than 1.2 or, as an alternative, cause at least 75% mortality in 4-to 8-week-old chickens infected intravenously. H5 and H7 viruses which do not have an IVPI of greater than 1.2 or cause less than 75% mortality in an intravenous lethality test should be sequenced to determine whether multiple basic amino acids are present at the cleavage site of the haemagglutinin molecule (HA0); if the amino acid motif is similar to that observed for other HPNAI isolates, the isolate being tested should be considered as HPNAI;*
- b. LPNAI are all influenza A viruses of H5 and H7 subtype that are not HPNAI viruses.*

Section 9.1.4 does not claim that *only* HPAI and LPAI strains of the H5 and H7 subtypes comprise the most recent OIE definition of notifiable avian influenza. Rather, that highly pathogenic and low pathogenicity strains of H5 and H7 virus are *included* in this definition.

2.3.18 The sixth paragraph in this section (*Section 9.1.4*) should be updated.

**MAFBNZ response:** The paragraph in the draft import risk analysis referred to above states the following:

*Since the emergence of the HPAI H5N1 virus a pandemic of avian influenza has spread through Asia, the Middle East, eastern and central Europe (Sabirotic et al 2006), and the first case occurred in England (Suffolk) in February 2007 (DEFRA 2007b). At the time of writing (November 2007) an outbreak of H5N1 has occurred in turkeys in the Norfolk/Suffolk area (DEFRA 2007a). The British authorities are slaughtering the infected flock and enforcing a 3km Protection Zone, a 10km Surveillance Zone and a wider Restricted Zone covering the whole of Suffolk and most of Norfolk around the infected premises. For the purposes of this risk analysis it will be assumed that the disease is eradicated. However, the risk analysis will be modified as necessary depending on the outcome of the control measures.*

It is recommended that in the final version of the risk analysis published alongside this review of submissions this paragraph should be reworded as follows:

*Since the emergence of the HPAI H5N1 virus a pandemic of avian influenza has spread through Asia, the Middle East, eastern and central Europe (Sabirotic et al 2006), with two outbreaks in commercial poultry described in England during February 2007 (Suffolk) and November 2007 (Norfolk) (DEFRA 2009). H5N1 virus was also identified in a number of wild birds in England during January/February 2008 (DEFRA 2008a).*

*An outbreak of HPAI H7N7 was diagnosed in a single free-range layer premise in Oxfordshire in June 2008 (DEFRA 2008b).*

*The United Kingdom is currently recognised as being free from HPAI (DEFRA 2008c).*

2.3.19 Section 9.2.1 (Entry assessment) concludes that the likelihood of introducing the viruses is low but non-negligible if birds are sourced from a closed flock. Industry disagrees with this conclusion and suggests that the risk is non-negligible (but not low).

Industry notes, as stated previously, that further detail regarding the definition of a closed flock must be provided. However, industry also notes that unless birds are tested for any H5 or H7 subtype of avian influenza it would be most likely be impossible to tell if the birds were carrying LPNAI prior to their introduction to the closed flock. Industry also notes that the definition of HPAI relates to the mortality caused by the virus in chickens and does not reflect the level of clinical signs observed in other birds. Industry requests that the conclusion of the entry assessment be reviewed.

**MAFBNZ response:** Given that budgerigars will be sourced from a closed flock as outlined in Section 3 of the import risk analysis, it is considered that there is a low but

non-negligible likelihood of imported birds carrying avian influenza viruses. Details of certification requirements for the donor flock will be determined by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ responsible for drafting any import health standards based on the findings of this risk analysis.

Regardless of whether the risk is considered low or not low, all options presented for sanitary measures to manage the risk associated with avian influenza in imported budgerigars require individual birds to be tested and there is no reliance on source flock freedom to manage this risk.

- 2.3.20 Ideally Industry would like to see the application of *Option 4* suggested under Section 9.3.1 (Options) as this would be in line with the requirements faced by importers of poultry hatching eggs. Industry believes that the minimum level of risk mitigation which can be in place should be that suggested in *Option 2*.

**MAFBNZ response:** Comments on the suitability of the options presented for risk management will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ when drafting any import health standards developed from this import risk analysis.

- 2.3.21 Industry believes that given the potential risk to native bird species, it would be appropriate for *Option 2* proposed under Section 10.3.1 (Options) to be implemented as a risk management measure for Pacheco's disease virus.

**MAFBNZ response:** Comments on the suitability of the options presented for risk management will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ when drafting any import health standards developed from this import risk analysis.

- 2.3.22 Industry believes that at least *Option 2* proposed under Section 11.3.1 (Options) should be implemented for any budgerigars to be imported into New Zealand.

**MAFBNZ response:** Comments on the suitability of the options presented for risk management will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ when drafting any import health standards developed from this import risk analysis.

- 2.3.23 Industry believes that of the risk management options proposed under Section 12.3 (Risk Management) at least *Option 2* should be implemented.

**MAFBNZ response:** Comments on the suitability of the options presented for risk management will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ when drafting any import health standards developed from this import risk analysis.

- 2.3.24 Industry notes under Section 13.2.1 (Entry Assessment) that it is unclear what measures will be taken to prevent indirect contact between budgerigars for export to New Zealand and large parrots. Industry suggests that this should be clarified before a conclusion of negligible risk can be reached.

**MAFBNZ response:** The entry assessment conclusion reflects the negligible likelihood of proventricular dilation disease in a closed flock with a history of disease freedom and the absence of any reports confirming this disease in budgerigars. Requirements surrounding the certification that the source flock has not been in contact with other birds will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ responsible for drafting any import health standards based on the findings of this risk analysis.

- 2.3.25 Industry also notes that a reference in the Reference list of this section refers to a document which has not yet been released by Biosecurity New Zealand and is therefore not in the public domain.

**MAFBNZ response:** The reference in question refers to a personal communication reporting the histological diagnosis of proventricular dilatation disease in 1996. It is recommended that this is clarified in the final version of the risk analysis.

- 2.3.26 Industry is surprised by the inclusion of Section 16 (Rotavirus Infections) in the draft IRA as the conclusion in the preliminary hazard analysis suggested that this was not a hazard of interest in the commodity.

**MAFBNZ response:** Noted. A chapter on rotavirus infections was added to the import risk analysis following internal review of this document. The preliminary hazard list was not amended to reflect this and it is recommended that this be corrected in the final version of the risk analysis published alongside this review of submissions document.

- 2.3.27 Section 17.1.2 (OIE List) states "*Salmonella* serotypes other than *Salmonella* gallinarum-pullorum are not included in avian section of the OIE list". Industry notes that whilst this is true Section 6 of the Code entitled Veterinary Public Health does address the control of certain other *Salmonella* serotypes in poultry.

**MAFBNZ response:** OIE listed diseases are those that are notifiable to the OIE. The criteria for listing diseases are described in Article 1.2.1 of the *Code* and the OIE list of notifiable diseases is given in Article 1.2.3 of the *Code*. The import risk analysis is correct in stating that *Salmonella* serotypes other than *Salmonella* gallinarum-pullorum are not included in avian section of the OIE list.

2.3.28 Section 17.1.5 (Hazard identification conclusion) states that “*Salmonella pullorum* and *Salmonella gallinarum* are pathogens of poultry and are rare in the UK (Veterinary Laboratory Agency, 2006). There is no evidence of their occurrence in budgerigars in the UK”. It is unclear to the Industry whether the absence of evidence is a result of a true absence of the bacteria in the UK budgerigar population or whether it is simply that no surveys have been carried out for the presence of these bacteria in budgerigars. Industry suggests that the hazard identification conclusion could be significantly different depending on which of the above options is correct.

**MAFBNZ response:** There is no evidence for natural infection of budgerigars with *S. Gallinarum* or *S. Pullorum*. Please see the response to 2.3.11 above.

Furthermore, all options listed for the management of the risk associated with exotic *Salmonella* spp. in budgerigars include a requirement for bacteriological culture which would identify any *Salmonella* spp. associated with the imported commodity.

2.3.29 *Option 2* proposed under Section 17.3.1 (Options) is the preferred option for the New Zealand Poultry Industry.

**MAFBNZ response:** Comments on the suitability of the options presented for risk management will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ when drafting any import health standards developed from this import risk analysis.

2.3.30 Industry would prefer the implementation of *Option 3* under Section 24.3.1 (Options) as this is in line with the requirements currently in place for Avian Transitional facilities.

**MAFBNZ response:** Comments on the suitability of the options presented for risk management will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ when drafting any import health standards developed from this import risk analysis.

2.3.31 Industry disagrees with the statement that “Feather mites have little economic impact in the poultry industry” in Section 25.2.3 (Consequence Assessment). Industry notes that feather mites can have a significant effect on production when occurring in high numbers and can cause severe distress to affected birds.

**MAFBNZ response:** Noted. It is recommended that the final version of the import risk analysis that will be published alongside this review of submissions document be amended to reflect the above comments.

2.3.32 Industry would accept *Option 1*, proposed under Section 25.3.1 (Options) as a suitable risk management measure.

**MAFBNZ response:** Comments on the suitability of the options presented for risk management will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ when drafting any import health standards developed from this import risk analysis.

## 2.4 GERALD BINKS

### 2.4.1 What do you consider are the most appropriate risk management options?

- a) All in 1 Above (the Australian protocol described in this submission).
- b) Only permit importations from those aviaries that are closed flock establishments.
- c) Only permit importation from your choice of UK Avian Representative who can see immediately signs of illness of any description. It should be noted that Specialist Avian Vets are rare and local veterinary surgeons tend to not spot such possible illnesses as a result of only receiving some 5 days tuition on all bird species during 6 years of study.
- d) Laboratory testing according to the MAFBNZ laid down protocol.
- e) Every bird must carry a closed registered ring with the owner's Code Number registered with their Society. No such rings from other sources to be permitted in the consignment. They could be from any other UK (non closed flock) or from mainland Europe.

**MAFBNZ response:** Comments on the suitability of the options presented for risk management will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ when drafting any import health standards developed from this import risk analysis.

### 2.4.2 QUESTION: In addition to the seed mixture in each crate can approval be considered to include grits so essential for budgerigars in transit ? Water is not given unless delay is encountered en route in which case airline staff will fill the attached containers.

**MAFBNZ response:** These comments will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ when drafting any import health standards developed from this import risk.

### 2.4.3 Blood testing is safely facilitated by cutting the claw tip on a bird, using adrenalin to seal the tip following extraction. It would be impractical to use sentinel birds such as young chicken pullets, but not if SPF birds are used

**MAFBNZ response:** These comments will be considered by the Animal Imports and Exports Section of the Border Standards Directorate of MAFBNZ when drafting any import health standards developed from this import risk analysis.

## 2.5 MAY EVANS, SOUTHLAND AVICULTURE SOCIETY

- 2.5.1 We have not put in a submission as such, but believe that with so many qualified and experienced people as those listed, who have created and worked on the risk analysis, it would be very unlikely that anything is not covered adequately. We have no further comment to make at present.

*MAFBNZ response:* Noted.

## 2.6 PAUL DIXON, PARROT SOCIETY OF NEW ZEALAND

2.6.1 We would like to let it known we support the proposal to import Budgerigars (*Melopsittacus Undulatatus*) into New Zealand

*MAFBNZ response:* Noted.

2.6.2 We support the comments made in the opening paragraph of the introduction. The legal importation of psittacine birds in our view will reduce the risk of people being tempted to smuggle birds into the country.

*MAFBNZ response:* Noted.

## 2.7 GAVIN WHITE, THE AVICULTURAL SOCIETY OF NZ (INC)

2.7.1 The Avicultural Society of New Zealand Inc. fully supports the draft analysis of the risks of Budgerigars from the United Kingdom as presented.

*MAFBNZ response:* Noted.

2.7.2 As noted in the second paragraph of the introduction our society has been concerned at the delay in the setting up of an import health standard for the importation of psittacine birds into New Zealand. Our concern is that without legal protocols in place to import, the unscrupulous may try other methods which could have disastrous consequences for the whole country.

*MAFBNZ response:* Noted.

### 3. Copies of Submissions

#### 3.1 NEIL CHRISTENSEN, AVIVET LTD

As discussed on the phone, my submission is something of a formality so as to be included on the list of submitters.

I do wish to note however how pleased I was with the final RA and wish to record my thanks to Bob Worthington in particular. Alan Gamble was similarly pleased with the final document. I believe that we have addressed all the issues, and from what I have seen some parts of avian industry have failed to grasp the degree of sophistication involved at the highest levels of the British Exhibition Budgerigar industry, where the top studs operate at a level of biosecurity comparable with poultry grandparent farms.

The only point I wish to make is that in relation to Pigeon Circovirus, which in table 1, page 6 is noted as not being recorded in New Zealand. I sent a number of samples to South Africa for PCV testing. This testing was carried out with the permission of the Director of IDC. The results are attached, which indicate the presence of PCV in New Zealand. I intend to make arrangements for the publication of these results in due course.

I was heartened to see that the fact that budgerigars have been imported up to fairly recently with no apparent ill effects on poultry or native birds was given due acknowledgement in relevant sections, and I look forward to a pragmatic Import Health Standard in the near future

## 3.2 PHIL BELL, DEPARTMENT OF CONSERVATION

Comments on the draft import risk analysis for budgerigars from the United Kingdom.

Thank you for the opportunity to review this draft import risk analysis. The Department recognises that we were party to the earlier round of consultation, and therefore appreciate the chance to have another review of this document. The majority of our comments were covered in the first round of consultation, and we note that MAFBNZ have made minor changes to the analysis on the basis of those comments.

### **Inclusion of additional chapters on other hazards**

We are pleased to see that this updated risk analysis has included analysis of four additional potential hazards associated with budgies. We consider the inclusion of Psittacine Pox virus, Psittacine Reovirus Infection, Rotavirus infection, and intestinal spirochaetes is an essential part of mitigating the potential risk of these diseases reaching New Zealand via this pathway.

### **Executive Summary**

The executive summary states that a non-negligible risk was identified in the hazards Rotaviruses and Q fever. Yet in the chapter on each of those hazards, Rotaviruses are not even considered a potential hazard (page 52) and Q fever is not classified as a potential hazard, based on the risk of entry being negligible (page 63).

Further to this, the chapter on Psittacine Reovirus infection states that the risk estimation of importing this disease in budgies is non-negligible (page 43); yet Psittacine Reovirus infection is not on the list of non-negligible risks in the executive summary.

We assume these errors are simply oversights made while drafting the list for the executive summary.

### **Commodity definition**

The Department acknowledges that MAFBNZ has expanded on this definition since our initial review of the risk analysis. We consider it to be much clearer, with the commodity well defined. Our opinion is that restricting the imported birds to belonging to single donor closed flocks of exhibition type budgies is a strong risk mitigation measure in itself. This measure is strengthened further by the requirement for inspection of the flock and the holding/quarantine facilities by DEFRA. We commend MAFBNZ on this stringent approach.

### **Preferred options**

This latest round of stakeholder consultation asks for our preferred risk management options for each of the identified hazards. We understand that these views will be passed onto the Import Standards team, who will use this information to make their decision on the requirements to import budgies from the UK. We also understand that we will be given an opportunity to view any draft Import Health Standard that comes out of this risk analysis.

The Department's preferences are below.

### **APMV-1**

Option 2 would be our preference, given the increased sensitivity of the testing undertaken after the 21 days incubation period of this disease.

### **Avian Influenza**

Option 2 would be our preference, as it provides for the full incubation period (21 days) of the virus and the diagnostic testing would achieve a higher sensitivity and accuracy of results.

#### **Pacheco's disease virus (Herpesvirus)**

Our preference would be option 2, particularly in light of the developments highlighted in the risk analysis stating that PCR testing of cloacal swabs is showing promise in detecting carriers of the virus.

#### **Psittacine Pox Virus**

Option 3 would be our preference, as the serological testing will be most likely to detect persistent carriers of the virus from within the quarantined birds. While we understand that bleeding the budgies can be difficult, we consider the risk of carriers of the virus is great enough that it warrants serological tests being included in the risk management measures.

#### **Psittacine Reovirus infection**

Our preference would be option 2. However we would like to see the addition of the sentence "Identification of reovirus infection will result in disqualification of all birds in the consignment", following the requirement that all dead birds from quarantine be submitted for a full post mortem examination.

#### **Salmonella spp.**

Our preference would be option 2; it gives a well-rounded assessment of the condition of the budgies with regard to Salmonella infection.

#### **Protozoal Blood Parasites (Haematozoa)**

Option 3 would be our preference, as blood smears are able to identify all species of blood parasites and PCR is able to diagnose some of them to species level which would enable MAFBNZ to use their discretion about which birds to allow for importation.

#### **Internal Parasites**

Our preference would be option 3, as this option allows for the cleaning requirements and the anthelmintic treatments to be tested (via the faecal sample inspections) to prove freedom from the internal parasites.

#### **External Parasites**

Option 2 would be our preference, as it allows the treatment measures (cleaning and treatment with an insecticide) to be tested (with physical inspection) to prove freedom from the external parasites.

### 3.3 MICHAEL BROOKS, POULTRY INDUSTRY ASSOCIATION OF NEW ZEALAND AND EGG PRODUCERS FEDERATION OF NEW ZEALAND

#### **Import Risk Analysis: Budgerigars from the United Kingdom**

The Poultry Industry Association of New Zealand (PIANZ), contactable at the above address, represents almost all of the poultry breeding and processing companies in New Zealand. Similarly, the Egg Producers Federation of New Zealand (EPF) represents all commercial egg producers in New Zealand. The PIANZ and EPF Veterinary Technical Committee has reviewed the Import Risk Analysis for the Importation of Budgerigars Meat from the United Kingdom into New Zealand (subsequently referred to as the draft IRA). The New Zealand Poultry Industry (including PIANZ and the EPF) subsequently notes the following points in this regard.

#### **General comments**

In regards primarily to **Section 4.1 (Preliminary hazard list)**, Industry is concerned that where a specific avian species is not listed in the natural and experimental hosts, it may be concluded on occasion that the disease does not occur in the species in question. However, industry does not believe it is safe to make this assumption as it is possible that the absence of reports simply reflects the absence of either appropriate surveys or the absence of thorough or conclusive investigation. For example, Industry does not believe that there would be a significant number of sick or dead budgerigars submitted to veterinarians or local veterinary authorities for post mortem and that even if this were to occur it is unlikely that the wide variety of testing which would be required to identify the presence or absence of all viruses would be undertaken. Industry notes that this is likely to be extremely expensive and something which the owner of the dead budgie would most probably not be willing to pay for.

Although we are raising this point with particular regard to budgerigars and this import risk analysis we believe that it applies for all species.

Industry strongly believes therefore that where no specific evidence is available to support the conclusion that a disease does not occur in any given species, in the development of an IRA, Biosecurity New Zealand should err on the side of caution and require further consideration for the organism in question, unless there is sufficient additional information which supports a conclusion that the disease would not occur in the species in question.

**Section 3 (Commodity Definition)** refers to “single closed donor flocks, maintained indoors in the United Kingdom”. Industry notes that although further clarification is provided in this section, additional clarification is still required. For example, it is unclear from the document whether there is only a single flock in the United Kingdom from which birds for export will be selected, although Industry believes that this is unlikely.

Industry also notes that “flocks will be maintained as closed flocks with minimum introduction of birds of certified health status that have been strictly quarantined”. Industry notes that although the draft IRA relies on the fact that flocks are “closed”, no detail is provided in terms of the “strict quarantine” which will be applied before birds are introduced into “closed flocks”. Industry suggests that the requirements for quarantine should be clarified.

The fourth sentence of this section states “Birds will not have contact with other birds by being taken to shows and exhibitions”. Industry notes that direct contact with other birds is not the only possible mechanism of disease communication for a number of avian diseases, with contact with contaminated equipment or clothing frequently a risk factor for the introduction of a number of avian diseases. Industry suggests that the requirements for “closed flocks” must detail the additional precautions (over and above avoiding direct contact with other birds) needed to ensure the exclusion of avian diseases from the export flock. These should include but are not limited to a requirement to clean and sanitise any new equipment introduced into the facility housing the “closed flock”, the use of clean clothing when entering the facility and a minimum stand down period for anyone which has had contact with any other birds or livestock.

Industry notes the requirement that the premises of the exporting flock will have suitable quarantine facilities which are inspected and certified by DEFRA as suitable for quarantine of birds to be exported to New Zealand. Industry is unaware of the current facilities available to breeders of exhibition type budgerigars in the United Kingdom, but finds it odd that these facilities would each have on-site a quarantine facility which would meet export standards.

**Table 1 (Preliminary hazard list)** details the preliminary hazards considered in the development of the IRA.

Industry notes that under the section headed **Paramyxoviruses** on page 5, Newcastle disease virus (avian paramyxovirus 1) is not considered to occur in the UK. Whilst Industry acknowledges that under the current OIE classification system virulent Newcastle disease is not present in the United Kingdom, the disease has occurred there in the past (DEFRA, 2006). Given the potential devastating impact which Newcastle disease could have on the New Zealand poultry industry and native bird population, industry believes that Newcastle disease warrants further consideration in the draft IRA with potential risk management options proposed in the draft IRA. However, Industry notes that Newcastle disease is indeed given further consideration in the draft IRA and therefore suggests that “requires further consideration” should be listed at “Yes” rather than “No”.

Industry notes that no references are provided in the draft IRA for the conclusion that avian paramyxoviruses 4, 6, 7, 8 and 9 do not occur in budgerigars. Industry notes that for other hazards where information is lacking, a footnote stating “Extensive review of the literature revealed no reports of the agent occurring in budgerigars”. Industry suggests that if that is the case for avian paramyxoviruses 4, 6, 7, 8 and 9, the same footnote should be referenced.

The first section of the table on page 6 deals with **Coronaviruses**. Industry notes that there is no reference for the conclusion that coronavirus enteritis has not been recorded in budgerigars.

The IRA states, under the section entitled **Avian Pox viruses** on page 6, that psittacine pox virus has not been recorded in budgerigars. However industry is aware of a reference published in Avian Diseases (Boosinger *et al.*, 1982) which suggests that psittacine pox has been recorded in budgerigars. Industry therefore requests that Biosecurity New Zealand review this.

Under section 4 (**Circoviruses**) on page 6, it is concluded that pigeon circovirus has not been reported in budgerigars. Two references for this are given. Industry has reviewed that of Woods and Latimer (2003) and does not agree with the conclusion that this pathogen has not

been identified in budgerigars. In fact, Woods and Latimer (2003) state “synonyms of circoviral disease in various avian genera, excluding chickens, have included psittacine beak and feather disease (PBFD), feather and beak disease, French moult (budgerigars), black spot (canaries), and runting syndrome (geese)”. These authors also state “A few spontaneous recoveries have been observed in budgerigars (*Melopsittacus undulatus*) ....”.

The first section of the table on page 6 deals with **bacteria**. Industry notes that *Salmonella* Gallinarum is reported as not occurring in budgerigars. However, work published in 2004 (Anonymous) suggests that *Salmonella* Gallinarum has been reported in budgerigars and industry therefore requests that this conclusion is reviewed. Industry therefore also suggests that this pathogen requires further consideration in the draft IRA.

Industry notes that *Salmonella* Enteritidis is reported as occurring in New Zealand but not in poultry. However, no reference is given for this. Industry seeks clarification from Biosecurity New Zealand on this and suggests that if no reference can be included, this should be changed to “No”.

Industry also notes that this section does not consider antibiotic resistant strains of bacteria which may be present overseas but which are not present in New Zealand. The Industry would like to see these covered in the draft IRA.

**Section 5.2.2 (Exposure Assessment)** and **Section 7.2.2 (Exposure assessment)** both consider the likelihood of exposure of New Zealand birds (including captive birds, commercial poultry and wild birds) to imported budgerigars. Section 5.2.2 considers the likelihood to be non-negligible while section 7.2.2 considers the likelihood of exposure to be low. Industry notes that given the increasing number of back yard poultry being kept in New Zealand, there is considerable opportunity for these back yard birds to be exposed to escaped budgerigars. Moreover, industry notes that the potential for contamination by indirect means has not been considered in either of these sections.

Industry is in favour of the application of at least *Option 2* proposed in **Section 5.3.1 (Options)**. However, industry would ideally prefer the application of *Option 4* as this would be consistent with the requirement for importers of poultry hatching eggs to import through a quarantine facility despite the fact that eggs are sourced from flocks which have been tested free of Newcastle disease.

The comment under **Section 6.1.4 (Epidemiology)** which states “Since budgerigars are unlikely to become infected with APMV-2 unless held in close proximity with passerine birds or infected turkeys, the entry assessment for budgerigars sourced from a single closed budgerigar donor flock is considered to be negligible” highlights the importance of defining what constitutes a “closed donor flock”. In addition this statement highlights the importance of having good biosecurity measures in place to prevent transmission of any pathogen via fomites, rather than simply as a result of direct contact between birds.

Industry acknowledges the statement in **Section 8.1.5 (Hazard Identification conclusion)** that APMV-5 has only been recorded once in budgerigars in the UK. Industry notes the references under **Section 8.1.4 (Epidemiology)** which show that the disease causes high mortality in budgerigars. However, this is not clear in **Section 8.1.5 (Hazard Identification Conclusion)** and industry suggests that it would be useful to include some mention of this and consequently the fact that the presence of the disease would be hard to miss, in **Section 8.1.5**.

**Section 9.1.3 (New Zealand Status)** refers to surveys for the presence / absence of avian influenza, carried out on New Zealand layers and broilers. Industry notes that subsequent to this additional surveys have been carried out on turkeys and other poultry species.

The penultimate sentence of the first paragraph of **Section 9.1.4 (Epidemiology)** states “According to the most recent OIE definition notifiable avian influenza includes both the HPAI and LPAI strains of the H5 and H7 subtypes (see Section 11.1.2)”. Industry notes that the section in the code which refers to Avian Influenza is currently 10.4. Industry is therefore unclear whether or not the IRA is referring to the OIE Terrestrial Animal Health Code or an alternative document. In addition industry notes that notifiable avian influenza does not only include H5 and H7 subtypes, but any subtype of avian influenza which has an intravenous pathogenicity index (IVPI) greater than 1.2.

The fourth paragraph of this section states “Gerlach reported that 7 out of 12 experimentally infected budgerigars ....”. Industry suggests that this sentence should include the avian influenza subtype which the budgerigars were experimentally infected with.

The sixth paragraph in this section should be updated.

**Section 9.2.1 (Entry assessment)** concludes that the likelihood of introducing the viruses is low but non-negligible if birds are sourced from a closed flock. Industry disagrees with this conclusion and suggests that the risk is non-negligible (but not low).

Industry notes, as stated previously, that further detail regarding the definition of a closed flock must be provided. However, industry also notes that unless birds are tested for any H5 or H7 subtype of avian influenza it would be most likely be impossible to tell if the birds were carrying LPNAI prior to their introduction to the closed flock. Industry also notes that the definition of HPAI relates to the mortality caused by the virus in chickens and does not reflect the level of clinical signs observed in other birds. Industry requests that the conclusion of the entry assessment be reviewed.

As highlighted above, there is a growing back yard poultry population in New Zealand and this should be considered in **Section 9.2.2 (Exposure Assessment)**. Industry also notes that this section does not consider the potential risk of indirect contact and the subsequent dissemination of any introduced avian influenza viruses via this route. Industry suggests that the likelihood of exposure is greater than low, and is definitely non-negligible.

Ideally Industry would like to see the application of *Option 4* suggested under **Section 9.3.1 (Options)** as this would be in line with the requirements faced by importers of poultry hatching eggs. Industry believes that the minimum level of risk mitigation which can be in place should be that suggested in *Option 2*.

Industry believes that given the potential risk to native bird species, it would be appropriate for *Option 2* proposed under **Section 10.3.1 (Options)** to be implemented as a risk management measure for Pacheco’s disease virus.

Industry believes that at least *Option 2* proposed under **Section 11.3.1 (Options)** should be implemented for any budgerigars to be imported into New Zealand.

Industry believes that of the risk management options proposed under **Section 12.3 (Risk Management)** at least *Option 2* should be implemented.

Industry notes under **Section 13.2.1 (Entry Assessment)** that it is unclear what measures will be taken to prevent indirect contact between budgerigars for export to New Zealand and large parrots. Industry suggests that this should be clarified before a conclusion of negligible risk can be reached.

Industry also suggests that it would be useful to carry out post mortem examination of birds dying in close flocks which provide birds for export to New Zealand to provide additional evidence that the disease is not present in the flock. Industry notes that if the disease were to enter New Zealand the impact on our native bird life could be significant. Similarly, as there is no current Import Health Standard for psittacine birds, it is hard to see how any pet psittacine stocks would be replaced if these were decimated by the inadvertent introduction of this disease.

Industry also notes that a reference in the **Reference** list of this section refers to a document which has not yet been released by Biosecurity New Zealand and is therefore not in the public domain.

Industry is surprised by the inclusion of **Section 16 (Rotavirus Infections)** in the draft IRA as the conclusion in the preliminary hazard analysis suggested that this was not a hazard of interest in the commodity.

**Section 17.1.2 (OIE List)** states “*Salmonella* serotypes other than *Salmonella* gallinarum-pullorum are not included in avian section of the OIE list”. Industry notes that whilst this is true Section 6 of the Code entitled Veterinary Public Health does address the control of certain other *Salmonella* serotypes in poultry.

Section 17.1.5 (Hazard identification conclusion) states that “*Salmonella* pullorum and *Salmonella* gallinarum are pathogens of poultry and are rare in the UK (Veterinary Laboratory Agency, 2006). There is no evidence of their occurrence in budgerigars in the UK”. It is unclear to the Industry whether the absence of evidence is a result of a true absence of the bacteria in the UK budgerigar population or whether it is simply that no surveys have been carried out for the presence of these bacteria in budgerigars. Industry suggests that the hazard identification conclusion could be significantly different depending on which of the above options is correct.

*Option 2* proposed under **Section 17.3.1 (Options)** is the preferred option for the New Zealand Poultry Industry.

Industry notes the statement in Section 20.2.2 (Exposure assessment) that “imported budgerigars are unlikely to mix extensively with New Zealand birds.” Industry acknowledges that this may be the case, but that the progeny of imported birds are likely to be rapidly disseminated through out New Zealand.

Industry would prefer the implementation of *Option 3* under **Section 24.3.1 (Options)** as this is in line with the requirements currently in place for Avian Transitional facilities.

Industry disagrees with the statement that “Feather mites have little economic impact in the poultry industry” in **Section 25.2.3 (Consequence Assessment)**. Industry notes that feather mites can have a significant effect on production when occurring in high numbers and can cause severe distress to affected birds.

Industry would accept *Option 1*, proposed under **Section 25.3.1 (Options)** as a suitable risk management measure.

Please do not hesitate to contact our offices should you have any queries.

### 3.4 GERALD BINKS

#### **RE: Importation of Exhibition Quality Budgerigars from The United Kingdom**

Dear Ms Reed,

Allow me to introduce myself. My name is Gerald Binks from Virginia Water, Surrey, England. I am just 15 minutes from London Heathrow Airport. Via Alan Gamble from Dunedin, I am in possession of your Stakeholder letter dated 6<sup>th</sup> January, 2009 and I have examined the MAFBNZ draft analysis of the risks involved to NZ were an import from the UK to be effected. It is highly probable that stock from my aviary would be the source of export to Alan Gamble, given approval, after consideration of the facts that I detail below. This is of course additional to all the MAFBNZ data in their draft analysis.

#### **My previous Experience.**

1) Ten years ago Australia imported 4500 budgerigars in 9 shipments to their Quarantine (QT) at Spotswood, Melbourne. Their UK Representative to effect their Protocol, via our UK Ministry, was myself. The quarantine period extended to 35 days at a site called Airpets Oceanic situated within 5 minutes of the above Airport. The quarantine itself was also fitted out by myself, housing 500 birds for laboratory testing and treatment prior to shipping. Regrettably this facility was disbanded and the cages sold after it was realised that Australia was not going to continue budgerigar imports following the release of infected Ostriches from Canada, post QT, to specific Farmers. I understand however that racing pigeons continue to be imported! All 4500 budgerigars had no problems whatsoever, post QT.

2) My responsibilities were to the Buyers, The Dept for Environment, Food and Rural Affairs (DEFRA), Airpets Oceanic and the visiting Defra Veterinary Surgeons and finally to the Australian Authorities that all the items listed in their protocol were adhered to. Please appreciate that the Australian Syndicate (Fanciers) toured the UK buying up stock, following which Local Vets would visit sellers and approving, or otherwise, the fitness of such purchases to be transported to the Airpets QT. The weakness of this procedure, in my opinion, was the time lapse from passing the birds as fit, to the time they were delivered to the QT – often weeks. This would result in great difficulties for myself having to reject unfit birds when delivered on one specific day to commence the 35 day QT. A conflict of interest between myself and the sellers would then arise, but I was supported by the Defra Vets and the Australian protocol.

#### **Current Situation.**

I have 60 plus years experience with Exhibition Budgerigars. I am the Author of The Challenge, Breeding Championship Budgerigars currently in its second edition and sold World Wide.. It is allegedly regarded as the Standard Work on all aspects of the hobby including an approved chapter on diseases. Most fanciers who enter the hobby seriously, acquire The Challenge. It is also one of your references in the risk analysis.

My aviary consists of an entirely closed flock management system. There are no outside flights as a deliberate policy to avoid contamination from any species in the indigenous population. Behind and completely separate from the main birdroom I have my own QT room into which new purchases are kept for 30 days while treated for psittacosis and protozoa, as a precaution, before release into the main flock. It is also used when importing (eg South Africa in 2003) stock when it is then under the control of the Defra appointed Veterinary Surgeon. Tests are then carried out in the normal way before clearance is granted. The same applies to

exports. This QT and the main stud is inspected annually and when exporting is involved has to be checked for hygiene prior to usage. Alan Gamble anticipates ,subject to MAFBNZ approval , that some 48 birds would be involved since my QT has 12 cages BUT four birds have to be in each cage to allow faecal samples to be collected from each group. All my stock carry a **Closed Society Ring put on the chicks at 7-10 days** and are impressed with **my Society Code No- BA23** along with **a year number and serial number**. These rings are 4.4 mm in diameter.

MAFBNZ Stakeholder Questions

1) Risk Assessment for each hazard group or organism ?

Using the Australian Protocol as an example, their finalised requirements included the following:

- a) 35 day anti psittacosis procedure using terramycin
- b) Anti protozoal treatment using emtryl or equivalent.
- c) Anti mite treatment using ivermectin to each bird externally.
- d) Laboratory testing via anal swabs from each bird for psittacosis infection or salmonella infection. **NB** Nothing established over all 4500 birds.
- e) Any deaths were autopsied, but rare.
- f) Australia required a statement from Defra that there was no evidence of Newcastle`s Disease reported within a 10 mile radius in the past 6 months from the point of the QT.

2 ) The Accuracy of the MAFBNZ of risk mgt, measures for each hazard group / organism ?

I submit that I am not qualified to answer, but with my experience I feel that every eventuality has been included.

3) What do you consider are the most appropriate risk management options?

- a) All in 1 Above.
  - b) Only permit importations from those aviaries that are closed flock establishments.
  - c) Only permit importation from your choice of UK Avian Representative who can see immediately signs of illness of any description. It should be noted that Specialist Avian Vets are rare and local veterinary surgeons tend to not spot such possible illnesses as a result of only receiving some 5 days tuition on all bird species during 6 years of study.
  - d) Laboratory testing according to the MAFBNZ laid down protocol.
  - e) Every bird must carry a closed registered ring with the owner`s Code Number registered with their Society. No such rings from other sources to be permitted in the consignment. They could be from any other UK (non closed flock) or from mainland Europe.
- 4) Are there alternative measures of risk management that will effectively manage the risk ?

General Comments:

H5N1 pathogen was established at two places some 100 miles distant from my aviaries about two years ago. One in Kent where a single smuggled Imported parrot was infected ( the whole establishment was culled and disinfected. ) The other was at a commercial premises involving poultry only, where all birds were culled by Defra but new stock introduced at a later date after final Defra approval.

Your recommendations for the import of live birds is first class but perhaps some of my previous comments might be considered for inclusion? It should be noted that Airpets Oceanic make to order, new IATA Crates for budgerigars. There were no losses at all as a result of their usage in all nine consignments to Australia. So two crates-- for 25 birds in each --new--would be certainty. **QUESTION:** In addition to the seed mixture in each crate can approval be considered to include grits so essential for budgerigars in transit ? Water is not given unless delay is encountered en route in which case airline staff will fill the attached containers.

Blood testing is safely facilitated by cutting the claw tip on a bird, using adrenalin to seal the tip following extraction. It would be impractical to use sentinel birds such as young chicken pullets, but not if SPF birds are used

### **Summary**

Although listed in the MAFBNZ risk analysis the majority of budgerigar problems arise from oesophageal, proventricular, intestinal and ulcerated gizzard hazards. 15 different diseases, to my knowledge, give the same external fluffed out feather symptoms and dull eyes associated with malabsorption factors and loss of weight. Most are geared around the “alimentary canal” system. Megabacteria are a secondary symptom to trichomonas for example (ref Dr D Jones, Senior Veterinary Surgeon at London Zoo in who first witnessed them.) I appreciate that other subsequent researchers differ in that opinion and mis-classified this **fungal** related specimen. Such problems are greatly reduced in a closed flock.

### **Conclusion**

- 1) It is suggested that Alan Gamble’s proposal that he imports from one closed flock source only, is sensible as it can be used as a test case.
- 2) The Virginia Water (BA23) Stud ceased Exhibition Showing some years ago mainly as a result of workload, so external contamination is negligible.
- 3) There are very few UK studs that are based on closed flock systems or have their own separate QT facilities. Movement of birds is considerable both to and from exhibitions and primarily from purchasing new “blood” from within the UK and also Europe.
- 4) Should approval be granted via MAFBNZ to Alan Gamble, then such an import would have to be effected between July and September in any one year. This is because breeding takes place outside these date zones.

Finally, I trust that this submission proves of help from the situation as it exists in the UK. I can be contacted at any stage for any further advice or opinion should this be required. My aviaries can be viewed on my website (see above)

### 3.5 MAY EVANS, SOUTHLAND AVICULTURE SOCIETY

I have the copy of the analysis 'Budgerigars from the United Kingdom' which was sent to Ross Peterson. Ross is our club representative for such items as a while ago he was President. He brought the analysis to the notice of committee members and several of us have read through the document.

We have not put in a submission as such, but believe that with so many qualified and experienced people as those listed, who have created and worked on the risk analysis, it would be very unlikely that anything is not covered adequately. We have no further comment to make at present. Very few of our club members hold budgies these days, we are more interested in neophemas, conures and also medium sized Australian parrots so if there is any likelihood of anything happening with any of these birds in the future, we would appreciate being notified once more.

I look forward to receiving the final document which we will then hold in our club library for all members to read.

### 3.6 PAUL DIXON, PARROT SOCIETY OF NEW ZEALAND

Import risk Analysis for Budgerigars (*Melopsittacus Undulatatus*) from the United Kingdom.

We would like to let it known we support the proposal to import Budgerigars (*Melopsittacus Undulatatus*) into New Zealand.

We support the comments made in the opening paragraph of the introduction. The legal importation of psittacine birds in our view will reduce the risk of people being tempted to smuggle birds into the country.

We are pleased to see this submission being processed to this stage. We would like to be added to the list of consultation stakeholders.

### 3.7 GAVIN WHITE, THE AVICULTURAL SOCIETY OF NZ (INC)

Submission on the Import Risk Analysis: Budgerigars from the United Kingdom

The Avicultural Society of New Zealand Inc. fully supports the draft analysis of the risks of Budgerigars from the United Kingdom as presented.

As noted in the second paragraph of the **introduction** our society has been concerned at the delay in the setting up of an import health standard for the importation of psittacine birds into New Zealand. Our concern is that without legal protocols in place to import, the unscrupulous may try other methods which could have disastrous consequences for the whole country.

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