

Import risk analysis:
White Rhinoceros
(Ceratotherium simum)
from Australia.

REVIEW OF SUBMISSIONS

23 December 2009

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Policy and Risk
MAF Biosecurity New Zealand



Import risk analysis: White Rhinoceros
(*Ceratotherium simum*) from Australia.
REVIEW OF SUBMISSIONS

23 December 2009

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

A draft import risk analysis on white rhinoceros (*Ceratotherium simum*) for New Zealand zoos from equivalent facilities in Australia was released for public consultation on 21 July 2009.

The draft risk analysis concluded that the risk was non-negligible and that risk management measures could be justified for the following organisms:

- Anthrax (*Bacillus anthracis*)
- Salmonella spp.
- Leptospira spp.
- Ticks
- Internal Parasites
- Weeds/weedseeds

Options for the effective management of these risks were presented.

The closing date for public submissions on this document was 4 September 2009. Two submissions were received, one from Hamilton zoo in New Zealand and one from Taronga Western Plains zoo in Australia. A number of points were made in these submissions about the practicality of the various options presented in the draft risk analysis. This review of submissions document addresses the points raised and 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.

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 in 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 document *Import Risk Analysis: White Rhinoceros (Ceratotherium simum)* from Australia for public consultation on 21 July 2009. 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 4 September 2009.

Two 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
Mike Goold & Samantha Kudeweh	Hamilton Zoo, New Zealand
Benn Bryant	Taronga Western Plains Zoo, Australia

2. Review of submissions

2.1. MIKE GOOLD & SAMANTHA KUDEWEH, HAMILTON ZOO NEW ZEALAND

2.1.1. In general terms we are of the opinion that whilst White Rhino can be relatively easily managed and handled given ideal facilities and conditioning, the majority of animals in Australasia would not fit into this category, and therefore risk management options that require a minimal amount of handling would be preferred.

MAFBNZ response: Noted. Animal handling concerns will be considered when decisions are being made regarding risk management options in the draft IHS.

2.1.2. Anthrax: As the incubation period is less than 14 days, we feel that the pre-export isolation period of 30 days is a sufficient risk management option on it's own. We are not in favour of vaccination.

MAFBNZ response: Noted. This will be considered when decisions are being made regarding risk management options in the draft IHS.

2.1.3. Salmonella: We would support adopting the second and third bullet points as well as the final comment (not identified as a bullet point) in the options section.

MAFBNZ response: MAF notes that these options (3 years premises freedom, 3 weeks in PEQ with multiple tests on faeces) provide the highest level of protection.

2.1.4. Leptospirosis: We would consider the option of antibiotic treatment to eliminate carriers as difficult in mature animals due to the large volumes required for injection. We have no knowledge, either anecdotal or reported scientifically, of leptospirosis in white rhinos in Australasia. We would prefer the option of importation without restriction for this disease.

MAFBNZ response: In view of the large volumes of antibiotics that would be required for injection, the final RA will be amended to refer only to oral ampicillin treatment relevant to rhino. The reference to injectable treatment specific to cattle will be deleted.

When making decision regarding risk management options in the draft IHS, MAF will consider the difficulties and potential incomplete efficacy of treatment, as well as the OIE deletion of the Leptospirosis chapter. As noted in the risk analysis, many *Leptospira* serovars occur in New Zealand and since the small numbers of imported zoo animals are not regarded as important in the epidemiology of leptospirosis, it would be reasonable to allow clinically healthy rhinos to be imported without restrictions for leptospirosis.

2.1.5. Internal parasites: The bullet point options appear to be a series of successive examinations and tests rather than stand alone options. In general terms we are comfortable with the options suggested.

MAFBNZ response: MAF notes the acceptability of the successive options, and considers that these are consistent with other live animal imports. This will be considered when making decisions on risk management measures in the draft IHS.

2.1.6. Ticks: A bullet point list of successive examinations and treatments which we are mostly comfortable with.

Re feed rations in bullet point three, we wonder about the practicalities of "inspected and determined to be free from potential contamination with ticks, tick eggs, larvae or nymphs", also we are unsure if the subsequent comment in brackets in this third bullet point refers to treatment of the food rations or the animals, but presumably the latter? The description "meticulously inspected" in the 5th bullet point may be difficult to comply with in even the most docile well conditioned rhino. A "general inspection" coupled with external treatment is likely to be most practical

MAFBNZ response: Noted. These measures, including the inspection of food rations and the meticulous inspection of the animal are consistent with other live animal imports, most notably zoo antelope. The IHS will be drafted to ensure the measures are certifiable by the exporting vets, and will be publicly consulted prior to issue.

2.1.7. Weeds/weed seeds: The second and third bullet points appear to be practical.

MAFBNZ response: Noted. This will be considered when making decisions on risk management measures in the draft IHS

2.2. BENN BRYANT, TARONGA WESTERN PLAINS ZOO AUSTRALIA

2.2.1. Section 13: internal parasites

Kiluluma spp endoparasites are rhino specific & relatively non pathogenic. Experience at Taronga Western Plains Zoo suggests that this parasite is difficult to eliminate completely (similar to the related Cyathostominae in horses) and that affected animals remain ova positive on faecal flotation subsequent to anthelmintic therapy. A requirement that white rhino for importation be endoparasite free is likely to result in the exclusion of animals that pose negligible biosecurity risk.

MAFBNZ response: The final risk analysis will be amended to expand on the option for when an animal cannot be certified as endoparasite free subsequent to treatment, but poses negligible biosecurity risk as follows:

In the case of surviving parasites larval cultures could be made, the parasites identified, and MAF notified of the results. Where pathogenic endoparasite spp. exotic to New Zealand are identified, the animals could be considered ineligible for importation until treatment has been demonstrated to be effective (or the organism is no longer considered exotic to New Zealand). Where endoparasite spp. identified are demonstrated to be non-pathogenic and/or species specific the animals may be considered eligible for import.

2.2.2. Section 11 Leptospirosis

The use of tetracycline or macrolide antibiotics for the elimination of potential persistent renal leptospira infection as prescribed for cattle is inappropriate for rhinoceros. There is likely to be a risk of dysbiosis and enteroxaemia with the use of these drugs in the hindgut fermenting rhino.

MAFBNZ response: Please see the response to 2.1.4 above. The final RA will be amended to refer only to oral ampicillin treatment relevant to rhino. The reference to injectable treatments specific to cattle will be deleted. This will be considered when making decisions on measures in the draft IHS.

3. Copies of submissions

3.1. MIKE GOOLD & SAMANTHA KUDEWEH, HAMILTON ZOO NEW ZEALAND

-----Original Message-----

From: Mike Goold [<mailto:Mike.Goold@hcc.govt.nz>]
Sent: Friday, 4 September 2009 3:56 p.m.
To: Risk Analysis
Subject: White Rhino IRA

Re the draft Import Risk Analysis for "White Rhinoceros from Australia" that MAF Biosecurity has made available for public consultation:

Hamilton Zoo comments as follows:

In general terms we are of the opinion that whilst White Rhino can be relatively easily managed and handled given ideal facilities and conditioning, the majority of animals in Australasia would not fit into this category, and therefore risk management options that require a minimal amount of handling would be preferred.

We note that the risk management options in the IRA are presented only as bullet points, and we will refer to them as eg " the second bullet point" etc.

Anthrax: As the incubation period is less than 14 days, we feel that the pre-export isolation period of 30 days is a sufficient risk management option on it's own. We are not in favour of vaccination.

Salmonella: We would support adopting the second and third bullet points as well as the final comment (not identified as a bullet point) in the options section.

Leptospirosis: We would consider the option of antibiotic treatment to eliminate carriers as difficult in mature animals due to the large volumes required for injection. We have no knowledge, either anecdotal or reported scientifically, of leptospirosis in white rhinos in Australasia. We would prefer the option of importation without restriction for this disease.

Internal parasites: The bullet point options appear to be a series of successive examinations and tests rather than stand alone options. In general terms we are comfortable with the options suggested.

Ticks: A bullet point list of successive examinations and treatments which we are mostly comfortable with.
Re feed rations in bullet point three, we wonder about the practicalities of "inspected and determined to be free from potential contamination with ticks, tick eggs, larvae or nymphs", also we are unsure if the subsequent comment in brackets in this third bullet point refers to treatment of the

food rations or the animals, but presumably the latter ? The description "meticulously inspected" in the 5th bullet point may be difficult to comply with in even the most docile well conditioned rhino. A "general inspection" coupled with external treatment is likely to be most practical.

Weeds/weedseeds: The second and third bullet points appear to be practical.

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3.2. BENN BRYANT, TARONGA WESTERN PLAINS ZOO AUSTRALIA

.Risk analysis-import of white rhino from Australia to New Zealand

Dr Benn Bryant BVSc MVS MACVSc
ARAZPA Vet SAG

This IRA is a reasonable & thorough approach to the identification and management of biosecurity risk associated with the transfer of captive born white rhino from Australian to New Zealand Zoos. My comments are as follows.

Section 13: internal parasites

Kiluluma spp endoparasites are rhino specific & relatively non pathogenic. Experience at Taronga Western Plains Zoo suggests that this parasite is difficult to eliminate completely (similar to the related Cyathostominae in horses) and that affected animals remain ova positive on faecal flotation subsequent to anthelmintic therapy. A requirement that white rhino for importation be endoparasite free is likely to result in the exclusion of animals that pose negligible biosecurity risk.

Section 11 leptospirosis

The use of tetracycline or macrolide antibiotics for the elimination of potential persistent renal leptospira infection as prescribed for cattle is inappropriate for rhinoceros. There is likely to be a risk of dysbiosis and enterohaemia with the use of these drugs in the hindgut fermenting rhino.