

Risk Management Proposal - Import Health Standard for Ornamental Products of Animal Origin



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Biosecurity Standards
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Purpose

The purpose of this document is to:

- Show how options for the management of risk organisms have been assessed; and
- Provide recommendations for import requirements.

The Import Health Standard (the “standard”) for Ornamental Products of Animal Origin has been developed under Section 22 of the Biosecurity Act and MAF is seeking stakeholder feedback on the risk organism management options presented in the standard.

Background

Ornamental Products of Animal Origin are considered risk commodities, with the potential to harbour exotic viral and bacterial diseases that may negatively impact on New Zealand’s environmental and animal health. The standard for Ornamental Products of Animal Origin must effectively manage these risks.

In 2010 work began on the new generic Import Health Standard for Ornamental Products of Animal Origin. This work was initiated in light of stakeholder requests, interpretive discrepancies, and a high volume of non-compliant consignments. The bulk of non-compliances generally related to the sanitary and zoosanitary measures of game trophies.

A full risk analysis for these products is not available so this document is intended only as a concise analysis of available technical and scientific material.

The Import Health Standard for Ornamental Products of Animal Origin (xx November 2010) replaces the previously named Ornamental Animal Products¹ (dated 7 December 2005).

The new standard has been completed in a new format as per MAF Biosecurity New Zealand’s (MAF BNZ) strategic commitment to deliver more user-friendly, outcome-focussed standards. It further consolidates the [EU game trophy import health standard](#) and the [Australian un-tanned fur skins import health standard](#) which will be revoked once this standard is issued as current.

Objectives

The objective is to manage to an acceptable level all biosecurity risks posed by the import of Ornamental Products of Animal Origin. This is consistent with New Zealand’s domestic legislation and international obligations.

Considerations

Issues with current import health standard

The current import health standard has the following options for private consignments of hides, skins and hunting trophies that have not been commercially tanned prior to shipment:

- The products have been irradiated with a minimum dose of 5 Mrad (50 kGy) in a closed and sealed package.
- The products have been subject to treatment by vacuum fumigation with 10% formalin (formaldehyde) for a period of at least 8 hours.

These items are then either treated on arrival or reshipped/destroyed in accordance with the import health standard.

The import health standard notes that formalin treatment is generally ineffective for hunting trophies given the low penetrability of formalin into thick tissue.² It is noted in the MAF BNZ treatment standard however that if the item is over 32mm then add 1 hour per extra 4mm for formalin treatment.³ This creates confusion at the border as to whether formalin is effective or not.

There is only one transitional facility in New Zealand that can currently undertake irradiation. Although the irradiation chamber of this facility is too small to accommodate most hunting trophies.

World Animal Health Organization measures (OIE) ⁴

Summarised below are the OIE recommended measures for those organisms MAF BNZ considers high risk for hunting trophies. These measures apply to hunting trophies derived from susceptible species and from infected countries/zones.

African swine fever (ASF)

Trophies should be processed in an establishment approved by the [Veterinary Authority](#) for export purposes so as to ensure the destruction of the ASF virus and necessary precautions taken after processing to avoid contact of the product with any source of ASF virus.

Anthrax

Trophies should be either:

1. Fumigated with ethylene oxide 500mg/L, at a relative humidity 20-40%, at 55°C for 30 minutes; or
2. Fumigated with formaldehyde 400mg/m³ at relative humidity 30%, at >15°C for 4 hours; or
3. Irradiated with a dose of 40 kGy

Foot and Mouth Disease

Trophies should be either:

1. Boiled in water for an appropriate time so as to ensure that any matter other than bone, horns, hooves, claws, antlers or teeth is removed; or

2. Irradiated at a dose of at least 20 kiloGray at room temperature (20°C or higher); or
3. Soaked, with agitation, in a 4% (w/v) solution of washing soda (sodium carbonate - Na₂CO₃) maintained at pH 11.5 or above for at least 48 hours; or
4. Soaked, with agitation, in a formic acid solution (100 kg salt [NaCl] and 12 kg formic acid per 1,000 litres water) maintained at below pH 3.0 for at least 48 hours; wetting and dressing agents may be added; or
5. In the case of raw hides, salting for at least 28 days with sea salt containing 2% washing soda (sodium carbonate - Na₂CO₃).

Rinderpest

This was considered but given this disease is on the brink of official worldwide eradication and the control measures are identical to FMDv, this disease was excluded.

Import requirements of other countries

In reviewing the recommended measures of this standard MAF BNZ has considered the existing import requirements of some of our trading partners. Import measures specific to hunting trophies have been reviewed and considered for:

- Biosecurity Australia⁵
- United States Department of Agriculture (USDA)⁶
- European Community⁷

MAF BNZ Resources

MAF BNZ has undertaken an import risk analysis (IRA) for hides and skins used in the leather industry. The outcomes of this IRA can be applied in a limited context to wild hunted game species. The IRA identified FMD and Anthrax as being of most concern and warranting additional measures over and above normal tannery processing.

The likelihood of hides and skins carrying infectious agents of concern would be greatly diminished if preserved with salt containing 2% sodium carbonate for at least 4 weeks⁸. This reflects the OIE Code measure for FMD as shown above.

Extreme pH levels attained during the tanning processing of hides and skins would likely result in rapid inactivation of FMD virus.⁹ This relates specifically to liming (pH 12.3- 13) or pickling and tanning.

The IRA also states for swine diseases (African Swine Fever/Classical Swine Fever) that soaking back in the presence of 5% non-ionic detergent would destroy much of the virus and any remaining infectivity would be destroyed by unhairing, liming, pickling, and tanning.

These processes are all inherently part of the commodity description given that partially processed or unprocessed hunting trophies are destined to proceed to a taxidermist for completion of processing.

Anthrax

The IRA notes that anthrax is a disease of concern for hides and skins from farmed production animals. There is however a lack of IRA work on whether this disease is of concern in the small global trade of game trophies.

It is known that epidemic outbreaks of anthrax occur periodically in endemic areas, usually in ten-year intervals or multiples thereof.^{10, 11}

If an animal was hunted during an outbreak and appeared healthy there is a low likelihood that the animal could be harbouring anthrax in its incubatory period. In Africa where anthrax is highly prevalent, and where most game trophies originate from, trophies harvested during hunting are generally processed at safari camps. When presented to the veterinary authority the trophies are screened for the presence of anthrax spores and the screening procedure is known to be 85% effective.¹¹ Any infected trophies will not be certified as fit for export and non-contaminated trophies are further treated with formaldehyde to ensure no spores are present.

The greatest risk of exposure would be when the hunted animal is skinned in the field as opening of the carcass would result in sporulation of *B. anthracis*. Most of these spores would remain in the local environment but some could contaminate the skin taken from the animal. The risk presented by the (possibly contaminated) skin would be much less than the risk of infection faced by the individual removing the skin.

The level of processing that these trophies undergo on arrival in New Zealand should also be taken into consideration. Most, if not all, unprocessed trophies will proceed to a taxidermist who will further process the hide/skin by pickling and subsequent tanning. This level of processing is more than adequate to address any biosecurity concern and is a necessary step in order to mount any game trophy.

It should be considered highly unlikely that material derived from an animal that has died from anthrax would be deemed suitable for use as a trophy. Trophy animals are generally hunted as live and healthy specimens and conditioning of the animal is highly prized. Even if an animal that has contracted anthrax is skinned there is a low likelihood that spores would be present in any significant quantities once that skin reached New Zealand. Finishing of these commodities into taxidermy grade hunting trophies in New Zealand will also add a level of risk management. The likelihood therefore of exposure to susceptible animal species in this country from a mounted hunting trophy has to be considered as very low, if not negligible.

Recommended Import Health Standard measures

MAFBNZ has considered two risk management options to manage the potential risks associated with hunting trophies. These two options are discussed below.

Transitional Facility

MAF BNZ consider the biosecurity risks posed by hunting trophies (as defined in the scope of the IHS) can be managed without the requirement for hunting trophies to be fully processed at a transitional facility approved under the MAF Standard 154.02.18 (information about Transitional Facilities can be found at <http://www.biosecurity.govt.nz/regs/trans/stds>).

It is recognised that there are few taxidermists in NZ who would be willing to meet the transitional facility requirements and that the majority of taxidermy facilities are already approved by MAF to process hunting trophies for export. New Zealand exports more hunting trophies than imports so this would impose an additional cost on taxidermists. It is further recognised that the global trade in hunting trophies is generally small and restricted to private importers.

Given the above points, and taking into account the nature of processing associated with expedited hunting trophies, the requirement for a transitional facility is not considered to be a practical measure.

Zoosanitary measures

Given that the requirement for a transitional facility is not considered to be a practical measure, it is therefore recommended that the following zoosanitary measures be adopted to achieve an appropriate level of protection for imported game trophies:

Partially processed game trophies

Zoosanitary requirements

The zoosanitary certificate must state that;

- i. Bone, horn, hooves, claws, antlers, tusks, and teeth have been boiled in water at a minimum of at least 100 degrees C for at least 30 minutes, and that all adherent tissue has been removed;

AND/OR

- ii. Hides and skins have been irradiated with a minimum dose of 5Mrad (50kGy) in a closed and sealed package,

OR

- iii. Hides and skins have been pickled in a solution of salt containing mineral acid at a pH of 4 or lower, and packaging in a barrel, cask or water tight case while still wet with such solution.

Unprocessed mammalian game trophies

For hides and skins from countries **not** recognised as free from foot and mouth disease by the OIE, the zoosanitary certificate must state that the hides/skins have been:

- i. Dry or wet salted with salt containing 2% sodium carbonate for at least 28 days, and

- ii. Sourced from an area free from any outbreaks/epidemics of anthrax;

OR

- iii. Disinfected with a procedure approved by the OIE for the inactivation of anthrax spores and that necessary precautions were taken after processing to avoid contact of the product with any source of anthrax spores.

For hides and skins from countries recognised as free from foot and mouth disease by the OIE, the zoosanitary certificate must state that the hides/skins have been:

- i. Dried, dry or wet salted, for at least 14 days; and

- ii. Sourced from an area free from any outbreaks/epidemics of anthrax;
- OR
- iii. Disinfected with a procedure approved by the OIE for the inactivation of anthrax spores and that necessary precautions were taken after processing to avoid contact of the product with any source of anthrax spores.

1. Literature cited

¹ Import Health Standard for Ornamental Animal Products from All Countries (2005): *Ministry of Agriculture and Forestry, MAF Biosecurity New Zealand*. Accessed online at <http://www.biosecurity.govt.nz/imports/animals/standards/inetroic.all.htm>

² Malecki JC, McCausland IP, (1982): In vitro penetration and absorption of chemicals into the ovine hoof. *Research in Veterinary Science*. 1982. 33: 2, 192-197. 33.

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⁴ Terrestrial Animal Health Code (2010). *World Organisation for Animal Health*, Accessed 19/08/2010 http://www.oie.int/eng/normes/mcode/en_sommaire.htm

⁵ Biosecurity Australia (2010) ICON import database, Accessed 19/08/2010 http://www.aqis.gov.au/icon32/asp/ex_querycontent.asp

⁶ Electronic Code of Federal Regulations: Sanitary control of animal byproducts offered for entry into the United States, Part 9, section 95, Accessed 19/08/2010 <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl>

⁷ Regulation (EC) No 1774/2002 of the European Parliament and of the Council of 3 October 2002 laying down health rules concerning animal by-products not intended for human consumption, accessed online at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002R1774:EN:HTML>

⁸ Import Risk Analysis: Hides and Skins from specified animals (2008), MAF Biosecurity New Zealand, accessed online at <http://www.biosecurity.govt.nz/files/regs/imports/risk/hides-and-skins-ra.pdf>

⁹ Pharo, HJ (2002): Foot and mouth disease: an assessment of the risks facing New Zealand. *New Zealand Veterinary Journal* 50(2), Pp46-55

¹⁰ Siamudaala, VM (2005): A Study of the Epidemiology and Social-Economic Impact of Anthrax in Luangwa Valley in Zambia. *Submitted in partial fulfilment of Msc, University of Pretoria*

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