



Import Risk Analysis

Importation of heat processed stockfeed of plant origin

Final Report

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AUSTRALIA

EXECUTIVE SUMMARY

AQIS has undertaken an import risk analysis (IRA) to review conditions for the importation of heat processed stockfeed of plant origin. The IRA has identified disease and pest risks and management options. AQIS has consulted with stakeholders through Animal Quarantine Policy Memoranda (AQPMs) 1996/14, 1997/102, 1998/31 and 1998/88. The last AQPM included amended draft quarantine requirements, for public comment. Stakeholder comments and recommendations arising from the AQPM were incorporated into this document and the final conditions.

INTRODUCTION

Currently, only a small range of stockfeed ingredients of plant origin can be imported from member countries of the South Pacific Commission, Thailand, Canada, USA and New Zealand.

AQIS has received access requests for heat processed stockfeed of plant origin from India, Malaysia, Indonesia and Argentina.

In February 1996, AQIS circulated AQPM 1996/14 proposing a generic framework on which an IRA would be based. AQPM 1997/102 issued in October 1997 advised that the IRA was to be incorporated into the Nairn IRA process. Following consideration of comments received, the Executive Director of AQIS approved the routine approach.

Stakeholder comments received from AQPM 1996/14 were used in developing the first set of draft conditions that were released for public comment in March 1998 via AQPM 1998/31.

Six stakeholders responded and their comments included whether heat treatment of these products would inactivate infectious bursal disease virus (IBDV); the management of quarantine risks associated with in-plant contamination of processed product; the need to prevent livestock access to raw materials at the farm of origin; the importance of obtaining accurate government certification, and importer awareness of potential chemical residue problems (although not a quarantine issue).

These comments were considered in drafting the amended protocol that was circulated under AQPM 1998/88 dated 19 November 1998. Comments were received from 7 stakeholders and their recommendations are addressed in this document. Issues raised included effectiveness of AQIS's inspection and audits, heat treatment specifications, pre-processing inspection, tolerances for low risk seeds and IBDV, Newcastle disease virus (NDV) and Foot and mouth disease virus (FMDV) transmission.

SCOPE OF THE RISK ANALYSIS

The IRA covers the importation of heat processed stockfeed of plant origin from all sources. Stockfeeds and stockfeed ingredients subject of this policy include those which have been

- processed using heat, and
- hammer-milled if the ingredients include whole grain.

Examples are: pelleted grain products, prepared pellets or nuts for animal feed (containing grain, soya bean meal etc), tapioca, by-products of oil extraction of plants (eg soya bean meal) and molasses.

The IRA does not apply to those products for which conditions already exist:

- palm kernel expeller meal and copra meal from member countries of the South Pacific Commission
- soya bean meal, maize (corn) gluten meal and similar products from Canada, New Zealand and the USA
- stockfeed pellets from New Zealand
- tapioca pellets from Thailand

Neither does it apply to plant products for stockfeed that have not been heat treated during processing.

CURRENT QUARANTINE POLICY AND PRACTICE

Imports are currently permitted from specified countries (see list above).

HAZARD IDENTIFICATION

The major pathogens of concern known to remain viable in fomites and excreta, and therefore potentially able to contaminate stockfeeds include:

Newcastle disease
Foot and mouth disease
Infectious bursal disease
Avian influenza
Swine vesicular disease
African and classical swine fever

These pathogens pose a significant threat to Australia and are exotic or sporadic and subject to a stamping out policy in Australia; and/or only relatively avirulent/non-pathogenic strains occur here; and/or are potential zoonoses.

RISK ASSESSMENT AND RISK MANAGEMENT OPTIONS

AQIS acknowledges that thermal treatment at time/temperature regimes that would inactivate NDV and foot and mouth disease virus (FMDV) may not be sufficient to fully inactivate IBDV, if present. However, the specified thermal treatment would be expected to reduce the infectivity of IBDV to a significant degree. As there is no evidence that infectious bursal disease has spread via stockfeed of plant origin, AQIS does not intend to base quarantine measures on the potential risk of contamination of stockfeed by IBDV.

On the other hand, the transmission of virulent NDV to fowl via stockfeed of plant origin was reported in Britain in 1984. The feed ingredients (including rice bran extract, wheat bran, guar meal and Indian rapeseed) were contaminated by NDV in pigeon faeces and in dead pigeons. The feed storage areas were infested with diseased pigeons. The ingredients were combined at food mills and did not undergo further treatment before being fed to poultry. In one of 22 outbreaks, disease may have been associated with pelleted feed ingredients. The pellets had been treated at 80°C for 30 seconds, a treatment that would be inadequate for sterilisation but would be expected to reduce the infectivity of NDV. Recontamination of the pelleted feed may also have occurred during post-pelleting crumbling.

In view of this, final conditions strengthen controls aimed at precluding the use of raw materials contaminated with bird faeces or dead birds.

A key element of the conditions is thermal treatment of the stockfeed with the objective of inactivating NDV. Heat treatment at 85°C for 3 minutes (consistent with industry practice for pelleting grain) would address quarantine risks associated with contamination of plant-based stockfeed by NDV. In the case of FMD-infected countries, AQIS requires heat treatment at 80°C for 10 minutes to address quarantine risks associated with contamination of the plant-based stockfeed by FMD virus, based on conditions in the OIE International Animal Health Code for the treatment of hay and forage from FMD-infected countries.

The products to which these conditions apply are heated as part of the commercial production process. AQIS considered the option of specifying a heat treatment that would apply to all products (eg a generic treatment that would be expected to inactivate NDV) and the option of evaluating applications individually and specifying the approved thermal treatment on the individual Permit to Import. Because individual access requests may vary widely in terms of product type and style, production method, health status of the country of origin and other issues, AQIS decided to specify the approved thermal treatment that would apply to individual access requests. Thus, the treatment specified on the permit would normally reflect the information provided by the processor, provided AQIS is satisfied that the treatment would reliably inactivate disease agents of quarantine concern.

It is our understanding that the commercial processing regimes applied to stockfeed of plant origin likely to be imported would normally exceed the time/temperature combinations that would inactivate viruses of quarantine concern. Where AQIS considers that the efficacy of thermal treatment would be marginally effective in inactivation of viruses of quarantine concern importation would not be permitted.

Pre-processing contamination by livestock/birds

Given the obvious difficulty in ensuring that livestock or birds have not had access to a field crop and the insignificance in quarantine terms of casual contact, given the thermal processing of the product, AQIS does not require certification that animals and birds have not had access to the

raw material. Rather, AQIS requires pre-processing inspection of the raw material to confirm the absence of obvious faecal contamination, feathers and dead birds.

The significance of post-processing contamination

To address post-processing contamination of plant-based stockfeed, AQIS requires that:

- packaging, such as bags, must be new (not previously used)
- the product has been protected from post-processing contamination
- no reports of animal disease transmission have been associated with the processing premises or its product in the preceding 12 months.

Government certification

The production of stockfeed of plant origin is not generally as highly regulated as the production of animal-derived foodstuffs or food for human consumption. However, AQIS requires assurances from a responsible authority (normally the Veterinary Administration) that the product complies with Australia's quarantine conditions. AQIS will consider alternative sources of certification based on advice provided by the proponent of the importation. On a full cost-recovery basis, an AQIS officer could attend the processing plant and certify individual shipments, but AQIS anticipates that this approach would only be used in exceptional circumstances.

AQIS approval of processing plants

AQIS has deleted the previously proposed requirement for prior AQIS approval of processing plants. The key element of the quarantine safeguards is the processing of plant-based stockfeed in accordance with the conditions on the import permit. This depends on the processing plant being equipped with a suitable apparatus for thermal processing and satisfactory means for excluding birds from the processing plant, including storage areas for processed product. These aspects are properly the subject of certification by the responsible authority in the exporting country. These are straightforward issues and the validity of certification could readily be readily checked by AQIS as the opportunity arises.

Where AQIS has had no/little prior contact with the Veterinary Administration or other certifying authority of the exporting country, AQIS may conduct an evaluation of the Administration's ability to provide valid certification before permitting any importation of plant-based stockfeed. Such an evaluation would be based on relevant OIE guidelines and may include an inspection of the processing facilities intending to export to Australia.

Chemical residues

The conditions make reference to potential contamination of plant-based stockfeed by chemical residues. Regulatory control of residues is under State/ Territory jurisdiction and importers are advised of their responsibility for complying with State chemical residue laws.

Thermographs

Thermographs are not a mandatory requirement in stockfeed pelleting plants in Australia. AQIS does not require the use of thermographs in foreign plants processing plant-based stockfeeds for export to Australia. A key element of the proposed quarantine safeguards is the alignment of the approved thermal treatment with normal commercial practice at the processing plant. AQIS

intends to require the manufacturer to make a declaration, to be endorsed by the certifying official, as to the time and temperature at which the product was treated.

Following development of draft conditions and consideration of stakeholder comments, AQIS identified further changes to the draft conditions. These involve matters of clarification of requirements, modification of requirements and measures to make the protocol more workable. The main alterations include:

Summary of amendments from the November 1998 draft conditions:

- 1.1 The scope of application of the conditions has been clarified and the need for feeds containing whole seed to be hammer- milled has been included.
- 2.1 Permits will be issued only to approved countries. This is in accordance with the guidelines for approval of countries currently being developed.
- 2.2 Applications should be sent to the Animal Programs Section rather than the previous Assistant National Operations Manager.
- 2.4 & 2.5 These paragraphs about animal and plant quarantine assessments have been combined. The minimum heat treatments have been stipulated.
- 2.9 Defective consignments may also be consigned for further treatment.
- 3.1.1 Feathers included amongst potential contaminants.
- 3.1.4 "Animals" changed to "animals or birds".
- 4.1.4 The government inspection of the processing plant must have taken place within 12 months prior to export.
- 4.2 The Permit to Import may require an official government phyto-sanitary certificate.
- 4.3 The Permit to Import may require certification regarding the cleanliness of conveyances used to transport the processed product.
- 5.1 The Permit to Import will stipulate the type of inspection on arrival to be undertaken. This will vary depending on the type of shipment.

Questionnaire

- 1 Requests a complete list of ingredients.
- 9 Includes a question whether carrier ingredients in the final product contain any animal or plant derived components.
- 13 Includes a question on temperature and pressure monitoring equipment.
- 24 Clarified to indicate tests for bacteria, viruses, toxins, fungi etc.