



6 November 2014

BIOSECURITY ADVICE 2014/13

GAMMA IRRADIATION AS A TREATMENT TO ADDRESS PATHOGENS OF ANIMAL BIOSECURITY CONCERN

This Biosecurity Advice informs stakeholders that the Department of Agriculture has finalised a review of gamma irradiation as a treatment to address pathogens of animal biosecurity concern.

The Department of Agriculture (the department) has finalised the review of gamma irradiation as a treatment to address pathogens of animal biosecurity concern. A draft review was issued on 30 January 2013 for a 60-day consultation period, which closed on 30 March 2013 (Biosecurity Advice 2013/04).

The review relates to animal pathogens, and not human food or plants. The main objective of the review was to assess current scientific information and where appropriate, recommend a more flexible approach to levels of gamma irradiation needed to inactivate specific bacterial, fungal and viral pathogens, and parasites of animal biosecurity concern. It does not specifically deal with irradiation treatment to address human health or food safety risks.

Stakeholder comments were received from three business entities.

The issues raised include:

- Clarification of the process involved in determining the irradiation dose for products
- Clarification on how the risk assessment of the product takes into consideration a variable like country of origin, or the prior-treatment of goods in determining the dose required
- Clarification on how D_{37} is used to determine the bio-burden in a product
- How the department communicates with importers to determine what import conditions are required for commodities from a specific country
- How the bio-burden of the product be estimated to calculate the dose required
- Expectation that irradiation levels higher than 50kgy will not be required, and
- Lack of data for *Brucella*, *Mycoplasma* and *Leptospira*.

The department considered all of the stakeholder comments and the following changes were made to the final review:

- A new Chapter 5 to clarify how the required irradiation dose for various products is determined
- Clarification on technical issues such as D_{37} , bio-burden was added to relevant sections of the final review, and
- An additional literature review was undertaken on *Brucella*, *Mycoplasma* and *Leptospira* conducted and added to the relevant sections.

The final review is available via the department's website, agriculture.gov.au/ba/memos.

Formats and accessibility: The department has made every effort to ensure the report is as accessible as possible. If you have difficulty accessing the information provided and need further assistance, or if you have any other concerns, please email: animal@agriculture.gov.au



DR ANDREW CUPIT
Assistant Secretary
Animal Biosecurity