

IMPORT RISK ANALYSIS

UNPROCESSED FIBRE OF SHEEP AND GOATS

REVIEW OF SUBMISSIONS

**MAF Biosecurity Authority
Ministry of Agriculture and Forestry
Wellington
New Zealand**

25 August 1999

Import Risk Analysis : Unprocessed Fibre of Sheep and Goats

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INTRODUCTION

The completion of the Wool Risk Analysis¹ was notified in the MAF publication *Biosecurity*, issue 15, 15 December 1998. The deadline for submissions was initially set as 1 February 1999. That deadline was extended two weeks into February following requests from some stakeholders who had not been able to complete their submissions on time.

MAF received submissions from the following:

SGS Wool Testing Services	21 January 1999
Federated Farmers	29 January 1999
Department of Conservation	1 February 1999
Ministry of Health	4 February 1999
Mohair New Zealand Inc	12 February 1999

As the issue of weed seeds was raised in three submissions, MAF carried out a further analysis on this matter, resulting in a separate document being produced in May 1999². This second analysis was sent to the three submitters who had identified this as an issue, resulting in the following two additional submissions being received by MAF :

Department of Conservation	24 June 1999
Federated Farmers	2 July 1999

The current document summarises the issues raised in all submissions, and presents the MAF responses to each point in turn.

REVIEW OF SUBMISSIONS

SGS Wool Testing Services

1. The submission related to wool samples, which are typically a few hundred grams. It was stated that testing may include moisture content and colour assessment, and that the safeguards recommended in the risk analysis would make such testing impossible. The submission suggested allowing gamma irradiation of samples after importation, as is currently allowable prior to export for private consignments or commercial samples. The submission considered that this would allow treatment of samples without opening packaging, which would sterilise the sample prior to testing and would therefore obviate any post-testing treatment requirements and would also prevent any exposure of staff to potentially harmful zoonotic agents. Some information on gamma irradiation was presented.

¹ Pharo HJ. Import Risk Analysis : Unprocessed Fibre of Sheep and Goats. MAF Regulatory Authority, November 1998, 135 pp. ISBN : 0-478-07980-X

² Randall J. Import Risk Analysis – Importation of Weed Species by Live Animals and Unprocessed Fibre of Sheep and Goats. MAF Regulatory Authority, May 1999, 25 pp.

MAF Comment:

- MAF notes that the safeguards recommended in the risk analysis for the treatment of wool are to be applied after testing which means that the methods recommended in the risk analysis would not interfere with moisture and colour testing as is maintained in the SGS submission.
 - Nevertheless, MAF accepts the point regarding the use of irradiation of sealed samples as a valid option for eliminating any health risks to handlers of wool samples.
 - Therefore MAF agrees with the suggestion that treatment by gamma irradiation be permitted before shipping to or after arrival in New Zealand for samples imported as personal consignments or for testing. The physical limits of irradiation chambers make it impractical to include such treatment as an option for commercial shipments of wool. The only facility available for gamma irradiation in this country is located at Upper Hutt (Schering-Plough), and it is not currently registered as a transitional facility. This would have to be done by the owners of the plant before it could be used to irradiate imported wool.
2. The submission expressed the opinion that laboratory scouring and commercial scouring should be clearly differentiated. It was stated that in wool testing laboratories wool is washed at higher temperatures than are considered in the risk analysis document, with much greater agitation and higher detergent concentrations with more effective rinsing, and higher drying temperatures than are used during commercial scouring. It was also stated that “flow back mode” is not used in wool testing laboratories as the process is not continuous and is performed on discrete samples. The submission requested that the term “laboratory scouring” be applied to wool samples rather than the term “scouring” as is currently applied in the risk analysis document.

MAF Comment:

- MAF understands that there are international standards for two forms of “laboratory scouring”- one is scouring for colour, and the other is scouring for yield. Scouring for colour is to take place for 30 seconds at 50-55°C, with thorough rinsing at 40-45°C. The scouring temperature is not specified in the standard for yield scouring, although if sodium carbonate is used the temperature is specified as 52°C. MAF does not consider that these time/temperatures are a sufficient basis to justify the classification of wool scoured by either method to be of less biosecurity risk than greasy wool. Therefore MAF considers that for wool samples that are not treated by irradiation or scouring prior to testing, at the end of testing, it will be necessary either to subject the wool to industrial scouring or to destroy it by incineration

Federated Farmers

1. The submission considered that the major deficiency of the risk analysis was that the risk of introduction of weed seeds was not addressed.

MAF Comment:

- MAF accepts that the risk of weed seeds needed to be addressed. See the further discussion on this topic later in this document.

2. The submission questioned the contention in the risk analysis that disease agents which are likely to survive less than a week in wool are not considered a hazard.

MAF Comment:

- MAF does not accept the position that wool is going to arrive in this country within a week of shearing. The agents referred to are the rinderpest and PPR viruses. Their infectiousness is considered to be maintained only hours outside the host.

3. The submission states that it is assumed in the risk analysis that all air importation of wool will come through Auckland airport, but that there are greater risks from wool coming in to provincial airports.

MAF Comment:

- The wool risk analysis does not specifically consider through which airports wool will be imported. Appropriate and consistent biosecurity measures are in place at all international airports in this country.

4. The submission states that all wool packs should be incinerated.

MAF Comment:

- MAF does not agree with this point. The risk of animal disease introduction from woolpacks is considerably less than the risk from imported wool, since any contamination of woolpacks will be limited and secondary to the contamination of wool itself, and the treatments recommended for wool packs are considered appropriate to address the risk. Wool packs which were used to export wool from New Zealand may be re-imported into this country when emptied, for reusing.

5. The submission makes recommendations regarding auditing of the movement of unprocessed wool.

MAF Comment:

- The matters referred to in the submission are outside the scope of the risk analysis. Rather they are covered in MAF's standards for transitional facilities.

6. The submission makes recommendations regarding the storage of bulk wool.

MAF Comment:

- This matter is discussed in section 5.1.1 of the risk analysis. Further details are outside the scope of this risk analysis but are considered in the development of import health standards and standards for transitional facilities.

7. The submission expresses concerns that liquid effluent resulting from the scouring of wool from countries with FMD might be sprayed on pastures in this country rather than being passed through an evaporation/combustion unit.

MAF Comment:

- One of the recommended safeguards on page 46 of the risk analysis is that liquid effluent must be passed through an evaporation/combustion unit. The process of approving woollscours will ensure that only those plants with the appropriate facilities are allowed to process imported fibre.

8. Federated Farmers congratulated the author of the risk analysis for its thoroughness and clarity.

Department of Conservation

1. The submission stated that DoC had no objections to the conclusions on animal and human health regarding the risk of introduction of disease agents and invertebrates.
2. DoC considered that the issue of weed seeds and fungal spores had not been adequately addressed in the risk analysis.

MAF Comment:

- MAF accepts that the risk of weed seeds needed to be addressed. See the further discussion on this topic later in this document.
- In the opinion of MAF, fungal spores are of no greater significance in wool than in many other imported materials, including the example of passengers' clothing which was cited in the DoC submission. Moreover, MAF considers that whatever that risk is with wool, it is adequately dealt with through the recommended safeguards, particularly on the disposal of scouring effluent and solid/semi-solid wastes

Ministry of Health

1. The submission contained several specific comments on different chapters of the risk analysis, none of which affected the conclusions of the risk analysis.
2. The submission questioned the different handling of water used in commercial scouring compared to that used to treat fleeces for home spinning or wool packs.

MAF Comment:

- Fleeces for home spinning which arrived at the border without appropriate documentation would be removed to a treatment centre, for treatment, where the disposal of water will be according to their standard procedures (i.e. discharge into sewer).
- MAF considers the risks posed by wool packs to be considerably less than the risk from imported wool, since any contamination of woolpacks will be limited and secondary to the contamination of wool itself, and the treatments recommended for wool packs are considered adequate to address the risk. Discharge of effluent used to wash imported wool or wool packs will not be permitted into the environment.

Mohair New Zealand Inc

1. The submission states (paragraph 3) “We do not question the list of diseases and we trust that the recommendations for handling material after scouring are appropriate”.
2. The submission expressed concern regarding the possible escape of agents prior to scouring.

MAF Comment:

- This matter will be addressed in the approval process for transitional facilities where wool would be stored prior to scouring.
3. The issue of greatest concern in the submission was the risk of weed seeds.

MAF Comment:

- MAF accepts that the risk of weed seeds needed to be addressed. See the further discussion on this topic later in this document.

WEED SEEDS

Three submissions (Federated Farmers, Department of Conservation and Mohair New Zealand Inc) considered that the risk of introduction of weed seeds in imported wool needed further attention. In recognition of this, MAF carried out a further analysis on this topic, reaching the conclusion that the safeguards in the original wool risk analysis were adequate for dealing with weed seeds i.e. “Plant and seed material removed from fibre during carding, scouring, or testing should be collected and waste material either incinerated or deep buried in a commercial rubbish tip”.

On 2 June 1999 the weed seed analysis was distributed to the three submitters who originally raised this as an issue.

MAF received two further submissions as a result of this, from the Department of Conservation and from Federated Farmers.

Department of Conservation

The DoC submission noted that the issue of fungal spores had not been addressed along in the risk analysis of weed seeds in wool, but considered that this was a much wider issue which could be considered in the future.

The submission stated that DoC supports the implementation of the proposed risk management options regarding weed seeds.

The submission stated that “the main issues in the first letter from the Department have been addressed in the second import risk analysis and the Department has no further comments to make”.

Federated Farmers

1. The submission questioned how the recommendation (i.e. regarding disposal of wastes) would be implemented.

MAF Comment:

- The implementation of the recommended safeguards will be detailed in the HIS and in the standards for transitional facilities handling imported fibre.
2. The submission made several points related to the prevention of introduction of weed seeds on the wool or in the intestinal tract of imported live animals.

MAF Comment:

- Although the second risk analysis did cover the issue of weed seeds in the fibre of live imported animals, this is not the subject of the primary risk analysis. Such matters will be considered when reviewing import health standards for live animals.

EFFECT OF IRRADIATION ON WEED SEEDS

In view of the decision by MAF to allow irradiation of wool samples and fleeces for home spinning, an opinion was sought from the Institute of Geological and Nuclear Sciences³ on the effectiveness of such treatment on weed seeds. The following information was provided:

The sensitivity of seeds to radiation varies widely with seed type and factors such as moisture content.

Most of the scientific studies have been concerned with seed improvement through mutation induction which occurs at very low doses compared to the 2.5Mrad (25kGy) dose that you discussed with me.

Doses 100-1000 times lower than the proposed dose lead to severe delay in emergence from seed, stunted growth and severe abnormalities in the seedlings. However, some resistant species continue to emerge at doses of about 1 Mrad (10kGy). They should not however, be regarded as viable in the sense of giving rise to plants capable of reproduction, they are far too seriously weakened.

MAF Comment:

- MAF considers that irradiation at levels capable of killing anthrax spores would also be adequate to kill most weed seeds.
- In addition, the disposal of solid and semi-solid wastes after wool testing by incineration would ensure that weed seeds were not introduced into New Zealand.