

**Import Risk Analysis:  
Fresh *Citrus* Fruit (7 species)  
from Samoa**

***REVIEW OF SUBMISSIONS***

October 2008



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Policy and Risk  
MAF Biosecurity New Zealand



*Import risk analysis: Fresh Citrus Fruit (7 species) from Samoa*

Review of Submissions

October 2008

Approved for general release

A handwritten signature in black ink that reads 'Christine Reed'.

Christine Reed  
Manager, Risk Analysis Group  
MAF Biosecurity New Zealand

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# 1. Executive summary

The risk analysis examined the nature and possible effect on people, the New Zealand environment and the New Zealand economy of any organisms that may be associated with fresh *Citrus* fruit (*Citrus latifolia*; *C. grandis*; *C.x meyeri*; *C.x paradisi*; *C. reticulata*; *C. reticulata* x *C. paradisi*; *C. sinensis*) from Samoa.

*Citrus* is a member of the Rutaceae family and the genus is thought to be native to South-East Asia. *Citrus* in Samoa is grown casually throughout the villages and as scattered trees in plantations. Harvesting of fruit for export is expected to occur in the summer.

In this risk analysis pests and pathogens were grouped according to their biology. A total of 91 organisms were identified as associated with *Citrus* fruit from Samoa. Of these 42 species were considered to be potential hazards for which risk assessments were conducted. Thirty-eight species were assessed to be hazards associated with fresh *Citrus* fruit from Samoa for which risk management measures are justified.

The draft risk analysis was released for public consultation on 8 August 2008. MAFBNZ received three submissions from The Secretariat of the Pacific Community; The Ministry of Agriculture and Fisheries, Samoa; and The New Zealand Citrus Growers Inc. This document replies to points raised by submitters.

As a result of the submission from The Ministry of Agriculture and Fisheries Samoa, the ant *Solenopsis geminata* has been removed from Chapter 15 of the risk analysis, leaving the assessments for *Paratrechina longicornis* and *Anoplolepis gracilipes*. The conclusion for Chapter 15 has not changed.

Four other changes within the document are to wording and do not change the conclusions presented in the draft risk analysis.

Copies of the submissions are included in Appendix 1 of this document.

## 2. 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. The final risk analysis and the review of submissions together 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 should 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 *Draft Import Risk Analysis: Fresh Citrus Fruit (7 spp) from Samoa* for public consultation on 8 August 2008. Every step was taken on the transparency of the risk analysis to ensure that it provided a reasoned and logical discussion, supported by references to scientific literature. The closing date for public submissions on the risk analysis was 19 September 2008.

Three submissions were received. Table 1 lists the submitters and the organisations represented.

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 the

recommended measures. For this reason, the review of submissions will answer issues of science surrounding likelihood<sup>1</sup>, not possibility<sup>2</sup>, 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**

| Date      | Submitter       | Organisation Represented/Location             |
|-----------|-----------------|-----------------------------------------------|
| 13/8/2008 | Roy Masamdu     | Secretariat to the Pacific Community          |
| 20/9/2008 | Anoano Seumalii | Ministry of Agriculture and Fisheries (Samoa) |
| 27/9/2008 | Nikki Johnson   | New Zealand Citrus Growers Inc.               |

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1 Likelihood: The quality or fact of being likely or probable; probability; an instance of this.

2 Possible: Logically conceivable; that which, whether or not it actually exists, is not excluded from existence by being logically contradictory or against reason.

### 3. Review of submissions

#### 3.1. Secretariat to the Pacific Community comments

3.1.1. It is likely that Samoa intends to use the HTFA method for fruit fly species. They could do tests on its effect on external insects like mealybugs and scale insects. I have seen HTFA treated fruits (pawpaw, breadfruit, mango) here in Fiji with minimal contamination from external pests such as these mentioned and if all steps are followed, there should be no external pests on the citrus.

**MAFBNZ response:** Comment noted.

3.1.2. On page 31 of 205 of the PDF copy (but page 16 of the document), It is stated that the pre-export management programme is not been implemented. Note that Samoa has a similar pre-export management programme for breadfruit exports and therefore has some experience in a systems approach. Several trial runs may be done and the system audited.

**MAFBNZ response:** It would be helpful to do the trials on *Citrus* as suggested.

#### 3.2. Ministry of Agriculture, Samoa comments

3.2.1. Section 15. Ants (15.2) *Solenopsis geminata* (Tropical Fire Ant) incorrectly recorded as occurring in the Independent State of Samoa. The tropical fire ant, *Solenopsis geminata*, is stated to be recorded from the Independent State of Samoa in the 2005 edition of CABI Crop Protection Compendium, with EPPO 2005 being given as the reference for its occurrence. However, this record for the Independent State of Samoa is incorrect and should be removed.

**MAFBNZ response:** This record by CABI has not been used in this risk analysis.

3.2.2. The record is in fact for the unincorporated territory of American Samoa. The reference stating this is Wetterer, J. K.; Vargo, D. L. 2003. Ants (Hymenoptera: Formicidae) of Samoa. Pacific Science 57(4): 409-419.

On page 413 the text recording the occurrence of the species states: "*Solenopsis geminata* (Fabricius). Tutuila: Fagaalu Beach (D.L.V., 20 May 2002)." That is, the only record is for American Samoa.

**MAFBNZ response:** Thank you for this clarification. The pest risk assessment for *Solenopsis geminata* will be removed from the risk analysis leaving the assessment of *Anoplolepis gracilis* and *Paratrechina longicornis* in the Ants chapter.

### 3.3. The New Zealand Citrus Growers Inc. comments

3.3.1. We note that lemons (*Citrus limon*) are not included in the commodity description. The Meyer is not a true lemon and is from a different species. Under Section 3.1.2, *C. limon* is listed which conflicts with Section 3.1 where it is not.

**MAFBNZ response:** In section 3.1 the species listed are those requested for import. The intention of describing both lemons and Meyer lemons in section 3.1.2 is to communicate that Meyer lemons, *Citrus x meyeri*, are different to lemons *C. limon*. This will be clarified in the *Citrus* RA to avoid confusion.

3.3.2. Growing areas (3.5.3) The Auckland region produces significant quantities of lemons.

**MAFBNZ response:** Thank you for bringing this to our attention. It will be added in.

3.3.3. Interceptions (4.2.1) We note that there are very high levels of pest interceptions on limes (65%) and pommelo fruit (48%) and we consider that these rates are unacceptable.

**MAFBNZ response:** MAFBNZ agrees that these interception levels are high and is currently working with the NPPOs of the countries concerned to ensure appropriate control measures are implemented.

3.3.4. Individual pest risk assessments (Section 8.5.4.1) The economic impact of *Prays citri* should be rated as High given the experience we have had with *P. nephelomina*. This has devastating rind spotting effects on lemons and possibly encore mandarins. It is the primary pest of concern to the lemon industry and significant funds are being spent on determination of control options.

**MAFBNZ response:** The assessment of economic impact was based on Smith *et al.* (1997) and the information in the risk analysis. Although the descriptor ‘medium’ has been used, the important point to note is that the economic impact is considered non-negligible therefore it is significant and worth considering further.

3.3.5. (Section 11.3.4.1) The economic impact of the listed whitefly species should be rated as high given the citrus industry experience with Australian citrus whitefly. The author’s comment that whitefly causes negligible damage on citrus in Australia cannot be used to suggest that lack of damage may also be the case in NZ. The Australian citrus whitefly recently became established in NZ and is the primary pest concern for the mandarin industry. Despite significant investment, an appropriate control mechanism is yet to be found. In Australia, the pest is not significant and is likely controlled by natural enemies which are not present in NZ.

**MAFBNZ response:** Section 11.3.4.1 was reviewed and the economic impact reassessed as high.

The risk analysis does not say “that whitefly causes negligible damage on citrus in Australia” in any part of the document.

3.3.6. (Section 17.5.4.1) The author has missed an important point regarding the economic impact of *Elsinoe australis*. This species of scab infects oranges and tangelos whereas *E. fawcettii* (which is present in NZ) does not infect those varieties. Thus, the proportion of the NZ citrus plantings attacked by scab would increase dramatically if *E. australis* became established. There is also significant market access concern from importing countries associated with the presence of *E. australis*.

**MAFBNZ response:** MAFBNZ appreciates this comment. This section will be adjusted accordingly. Please note the economic impact is considered non-negligible therefore significant and worth considering further.

3.3.7. Review of management options: We understand the concept of a systems approach but note that while MAF has provided comment on various possible components that could be involved in a systems approach, there is no detail given on what exactly this would be. NZCGI considers that we should be consulted when the detail of the systems approach is developed by MAF so that we can ensure that it will successfully mitigate the risk to our industry.

**MAFBNZ response:** One of the purposes of risk analysis is to explore options for risk management. The IHS is the final document stating the risk mitigation measures and this process includes discussion with Samoa to ensure MAFBNZ requirements can be met. There is a public consultation process for the IHS before it can be formally issued.

3.3.8. Given the high impact of the pests identified in the risk analysis, we look forward to further consultation on the proposed systems approach. We encourage MAF to include detail such as audit frequencies and how MAF will ensure that there is integrity in the Samoan export certification system.

**MAFBNZ response:** Any IHS that is developed as a result of this RA will include further details of systems approaches and audits considered necessary for verification of health status and this will be released for public consultation following the normal MAFBNZ process

3.3.9. Overall comments: NZCGI questions the economic sustainability of importing citrus from Samoa to New Zealand and we question why significant MAF resources were used in the development of this risk analysis.

**MAFBNZ response:** MAFBNZ is tasked with assessing risks associated with proposed trade and formulating options that will effectively manage those risks. The economics of the proposed trade is outside the primary scope of a risk analysis. MAFBNZ receives market access requests from a broad range of groups. The process for prioritisation is given on the MAFBNZ website:

<http://www.biosecurity.govt.nz/regs/imports/ihs/request#prioritisation>

3.3.10. It is extremely important that Biosecurity NZ ensures that it audits and monitors export phytosanitary systems in Samoa and ensures that the Import Health Standard is written in such a way that the requirements are easily understood.

**MAFBNZ response:** See reply to 3.3.8.

# Appendix 1

## **Submissions received**

- 1.1 Secretariat for the Pacific Community
- 1.2 Ministry of Agriculture and Fisheries, Samoa
- 1.3 New Zealand Citrus Growers Inc.

**From:** Roy Masamdu [mailto:roym@spc.int]  
**Sent:** Wednesday, 13 August 2008 5:48 p.m.  
**To:** Haritina Mogosanu  
**Cc:** Viliami Fakava; Sidney Suma  
**Subject:** FW: PRA Citrus ro Samoa

Dear Hari,

This is to acknowledge that I have had a look at the PRA for the citrus to Samoa. It is likely that Samoa intends to use the HTFA method for fruit fly species. They could do tests on it's effect on external insects like mealybugs and scale insects. I have seen HTFA treated fruits (pawpaw, breadfruit, mango) here in Fiji with minimal contamination from external pests such as these mentioned and if all steps are followed, there should be no external pests on the citrus.

On page 31 of 205 of the PDF copy (but page 16 of the document), It is stated that the pre-export management programme is not been implemented. Note that Samoa has a similar pre-export management programme for breadfruit exports and therefore has some experience in a systems approach. Several trial runs may be done and the system audited.

For your information and consideration,

Yours sincerely,

**Roy Masamdu**  
*Biosecurity & Trade Facilitation Officer,  
Land Resources Division,  
Secretariat to the Pacific Community,  
Private Mail Bag, Suva  
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Tel:(679)3370733 ext:258/ 3379258  
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Comments for the Draft Import Risk Analysis; Fresh Citrus Fruit (7 species) From Samoa.

**Title:** Import Risk Analysis Fresh Citrus Fruit (7 species) from Samoa

**Name:** Anoano Seumalii

**Designation:** Senior Quarantine Officer

**Organization:** Ministry of Agriculture and Fisheries

**Contact Details :** [techpolicy@samoaquarantine.gov.w](mailto:techpolicy@samoaquarantine.gov.w) Ph: (685) 20924

Section 15. Ants

15.2 *Solenopsis geminata* (Tropical Fire Ant)

*Solenopsis geminata* incorrectly recorded as occurring in the Independent State of Samoa

The tropical fire ant, *Solenopsis geminata*, is stated to be recorded from the Independent State of Samoa in the 2005 edition of CABI Crop Protection Compendium, with EPPO 2005 being given as the reference for its occurrence.

However, this record for the Independent State of Samoa is incorrect and should be removed. The record is in fact for the unincorporated territory of American Samoa. The reference stating this is Wetterer, J. K.; Vargo, D. L. 2003. Ants (Hymenoptera: Formicidae) of Samoa. *Pacific Science* 57(4): 409-419.

On page 413 the text recording the occurrence of the species states: “*Solenopsis geminata* (Fabricius). Tutuila: Fagaalu Beach (D.L.V., 20 May 2002).” That is, the only record is for American Samoa.

23 September 2008

Haritina Mogosanu  
Biosecurity New Zealand  
Ministry of Agriculture and Forestry  
PO Box 2526  
WELLINGTON

Thank you for the opportunity to comment on the **draft import risk analysis – fresh citrus fruit from Samoa**. This submission is made on behalf of NZ Citrus Growers Incorporated (NZCGI). Comments are listed under each heading that they refer to from the draft IRA.

### **Commodity and pathway description**

#### 3.1 Commodity description

We note that lemons (*Citrus limon*) are not included in the commodity description. The Meyer is not a true lemon and is from a different species. Under Section 3.1.2, *C. limon* is listed which conflicts with Section 3.1 where it is not.

#### 3.5.3 Growing areas

The Auckland region produces significant quantities of lemons.

#### 4.2.1 Interceptions

We note that there are very high levels of pest interceptions on limes (65%) and pommelo fruit (48%) and we consider that these rates are unacceptable. Limes and pommelo are often imported from Pacific Island countries and this high rate of pest interception indicates that import requirements are not being met appropriately. This indicates that MAF should be concerned about the phytosanitary certification systems in place in these countries and this should be investigated. Similarly, NZCGI is concerned about the ability of Samoa to meet import conditions that are established by this risk analysis and considers that a high frequency of in-country audits should be undertaken to ensure that conditions are understood and implemented prior to export.

### **Individual pest risk assessments**

NZCGI regrets that we are unable to undertake a full review of this section of the risk analysis. Such a review would require significant time and investment and this is not possible within the comment period timeframe. The following comments have been received from industry participants:

Section 8.5.4.1 The economic impact of *Prays citri* should be rated as High given the experience we have had with *P. nephelomina*. This has devastating rind spotting effects on lemons and possibly encore mandarins. It is the primary pest of concern

to the lemon industry and significant funds are being spent on determination of control options.

Section 11.3.4.1 The economic impact of the listed whitefly species should be rated as high given the citrus industry experience with Australian citrus whitefly. The author's comment that whitefly causes negligible damage on citrus in Australia cannot be used to suggest that lack of damage may also be the case in NZ. The Australian citrus whitefly recently became established in NZ and is the primary pest concern for the mandarin industry. Despite significant investment, an appropriate control mechanism is yet to be found. In Australia, the pest is not significant and is likely controlled by natural enemies which are not present in NZ.

Section 17.5.4.1 The author has missed an important point regarding the economic impact of *Elsinoe australis*. This species of scab infects oranges and tangelos whereas *E. fawcettii* (which is present in NZ) does not infect those varieties. Thus, the proportion of the NZ citrus plantings attacked by scab would increase dramatically if *E. australis* became established. There is also significant market access concern from importing countries associated with the presence of *E. australis*.

#### **Review of management options:**

While NZCGI has not been able to undertake a full review of the risk assessment, we note that a significant number of pests have been identified in Table 1 which indicates this is a high risk pathway for introduction of pests and diseases. Therefore it is crucial that high efficacy treatments are applied to the fruit and closely monitored for efficacy.

We understand the concept of a systems approach but note that while MAF has provided comment on various possible components that could be involved in a systems approach, there is no detail given on what exactly this would be. NZCGI considers that we should be consulted when the detail of the systems approach is developed by MAF so that we can ensure that it will successfully mitigate the risk to our industry. We do not believe that relying on a Samoan Government field officer to monitor crop husbandry practices carried out by a multitude of small farmers is practical or reliable. We also note that in most cases there is no solid experimental data to support the various disinfestation methods aside from cold sterilisation. And in that case, there is no evidence provided that a reliable, scientifically monitored and auditable cold sterilisation facility exists in Samoa to carry out this treatment. The sea journey is short and would not allow enough time for cold treatment in-transit.

Given the high impact of the pests identified in the risk analysis, we look forward to further consultation on the proposed systems approach. We encourage MAF to include detail such as audit frequencies and how MAF will ensure that there is integrity in the Samoan export certification system.

**Overall comments:**

NZCGI questions the economic sustainability of importing citrus from Samoa to New Zealand and we question why significant MAF resources were used in the development of this risk analysis. We are aware that there is little interest from fresh produce importers to import Samoan citrus and the economics of doing so are questionable. We are also aware that allowing importation of citrus from Samoa may involve importers from the NZ Samoan community not that are not usually involved in importing fruit and we are concerned that these people will not have the necessary understanding of NZ's Biosecurity requirements. The lack of a viable export market in NZ also brings into question whether the necessary treatment facilities in Samoa will be maintained at the necessary high standard. It is extremely important that Biosecurity NZ ensures that it audits and monitors export phytosanitary systems in Samoa and ensures that the Import Health Standard is written in such a way that the requirements are easily understood.

Thank you for the opportunity to comment on the draft risk analysis and we look forward to further consultation opportunities before imports commence.

Regards,



Nikki Johnson  
Executive Manager

