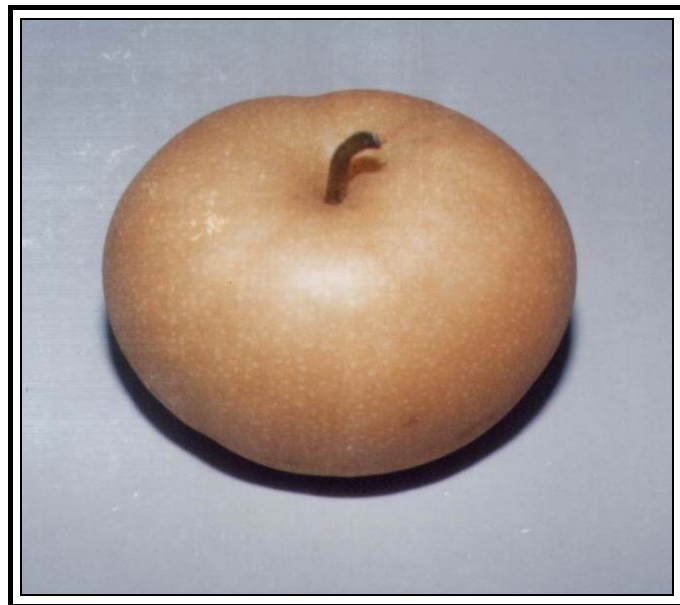


Import risk analysis:
Pears (Pyrus bretschneideri,
Pyrus pyrifolia, and Pyrus sp.
nr. communis) fresh fruit from
China

REVIEW OF SUBMISSIONS



6 October 2009

This page is intentionally blank

MAF Biosecurity New Zealand
Pastoral House
25 The Terrace
PO Box 2526
Wellington 6011
New Zealand

Tel: 64 4 894 0100
Fax: 64 4 894 0731

Policy and Risk
MAF Biosecurity New Zealand



Import risk analysis: Pears (*Pyrus bretschneideri*,
Pyrus pyrifolia, and *Pyrus* sp. nr. *communis*) fresh fruit from China

REVIEW OF SUBMISSIONS

29 October 2009

Approved for general release

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

Christine Reed
Manager, Risk Analysis
MAF Biosecurity New Zealand

This page is intentionally blank

Contents

Executive Summary	1
1. Introduction	3
2. Review of submissions	5
2.1. Dr MR Butcher Pipfruit New Zealand inc.	5
2.2. Mr. I. Wallace, Nashi NZ inc	28
2.3. Mr. Y. Wang, Director, General Administration of quality supervision, inspection and quarantine of the People's Republic of China (AQSIQ)	33
Appendix 1 Copies of submissions	41

This page is intentionally blank

Executive Summary

MAF Biosecurity New Zealand released the document Import Risk Analysis Pears (*Pyrus bretschneideri*, *Pyrus pyrifolia*, and *Pyrus* sp. nr. *communis*) fresh fruit from China for public consultation on 7 August 2009. The closing date for public submissions on this document was 10 September 2009.

This risk analysis considered the biosecurity risks associated with the importation of fresh pear fruit from China.

From a preliminary hazard list of organisms, those that were considered to be potential hazards in the commodity were subjected to individual risk assessments.

As a result of the individual risk assessments, it was concluded that the risk in the commodity was non-negligible for the following organisms:

- *Alternaria geisen*
- *Alternaria yaliinficiens*
- *Alternaria ventricosa*
- *Gymnosporangium fuscum*
- *Venturia nashicola*
- *Monilinia fructigena*
- *Phomopsis fukushii*
- *Bactrocera dorsalis*
- *Chrysomphalus dictyospermi*
- *Chrysomphalus dictyospermi*
- *Lopholeucaspis japonica*
- *Lepidosaphes malicola*
- *Parlatoria oleae*
- *Lepidosaphes conchiformes*
- *Lepidosaphes pyrorum*
- *Leucoptera malifoliella*
- *Dolycoris baccarum*
- *Harmonia axyridis*
- *Pempelia heringii*
- *Spilonota albicana*
- *Spilonota ocellana*
- *Acrobasis pirivorella*
- *Adoxophyes orana*
- *Carposina sasakii*

- *Conogethes punctiferalis*
- *Cydia inopinata*
- *Pandemis heparana*
- *Aphanostigma iaksuiense*
- *Pseudococcus comstocki*
- *Planococcus kraunhiae*
- *Euzophera pyriella*
- *Pseudococcus maritimus*
- *Amphitetranychus viennensis*
- *Kleemannia sp.*
- *Proctolaelaps sp.*
- *Tarsonemus yali*
- *Tydeus sp.*
- *Tyrophagus sp.*
- *Tetranychus truncatus*

These organisms were classified as hazards in the commodity and options for the effective management of these risks were presented.

Following consideration of the submissions received the following changes will be made to the risk analysis:

- pear psyllids are considered a hazard – risk assessment and assessment of risk management options added;
- *Parlatoria proteus* is not considered a potential hazard – risk assessment removed;
- *Kleemannia spp.*, *Proctolaelaps sp.*, *Tydeus sp.*, *Tyrophagus sp.* are not considered to be hazards – risk assessments removed;
- *Caliothrips fasciatus* is considered a potential hazard, but risk management measures cannot be justified – risk assessment added;
- A risk assessment has been undertaken for *Tetranychus kanzawai* in the light of new information and risk management options identified;
- A brief assessment has been undertaken for *Drosophila suzukii* in the light of new information. There is currently insufficient evidence of an association with pear fruit to justify risk management measures for this organism. However its status will be kept under review;
- Various sections have been redrafted to clarify the assessments, or to include additional information;
- Information about orchard and pack house management from the MAFBNZ trip report are included in the pathway description and appendix 4 removed.

1. 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, 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. These documents 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 and phytosanitary measures must 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 Import Risk Analysis Pears (*Pyrus bretschneideri*, *Pyrus pyrifolia*, and *Pyrus sp. nr. communis*) fresh fruit from China for public consultation on 7 August 2009. The closing date for public submissions on the risk analysis was 10 September 2009. Three submissions were received. Table 1 lists the submitters and the organisations they represent.

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 any risk management options presented. For this reason, the review of submissions will answer issues of science surrounding likelihood¹ not possibility², 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

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.

Submitter	Organisation Represented/Location
Dr MR Butcher	Pipfruit NZ Inc. (PNZI)
Mr I Wallace	Nashi New Zealand Inc (Nashi Growers Association)
AQSIQ	General Administration of quality supervision, inspection and quarantine of the People's Republic of China

2. Review of submissions

2.1. DR MR BUTCHER PIPFRUIT NEW ZEALAND INC.

The submission from Pipfruit New Zealand is included in Appendix 1. The discussion below summarises the main points raised and gives MAF Biosecurity New Zealand's (MAFBNZ) responses to them.

GENERAL COMMENTS

- 2.1.1. PNZI is concerned that MAFBNZ has limited the response time to 1 month from release for a 460 page document. This is unacceptable given the level of detailed review that has to occur in addition to other activities with the pome fruit sector during spring.

The key markets for New Zealand pome fruit require fruit with minimal or zero pesticide residues. To meet these requirements New Zealand producers have adopted low pesticide input integrated production practices. Incursions related to imports can seriously compromise New Zealand's ability to meet these key market requirements. Incursions may also require the use of chemistries long abandoned in New Zealand pome fruit production thereby compromising our production methods and philosophies as has happened with the tomato IFP programme following the incursion of Tomato potato psyllid into New Zealand. The NZ export pome fruit industry cannot sustain such a loss of programme. Consideration does not seem to have been given to these effects. There does not appear to be an impact report for each organism with respect to the sensitivity of New Zealand's current markets.

MAFBNZ response: An assessment of the consequences of establishment is undertaken for every organism with a non-negligible likelihood of entering on the commodity, being exposed to a vulnerable environment and establishing in New Zealand (see page 6 of the draft risk analysis). The assessment of economic consequences of potential establishment include direct impacts on production as well as a high level assessment of any impacts on export markets. MAFBNZ will specifically include the impact on export market access of a switch from a low input regime in the relevant consequence assessments.

- 2.1.2. It is critical New Zealand maintains and protects this unique status in pome fruit and other crops. As written the draft Import Risk Analysis for Pyrus fresh fruit from China does little to give the sector the confidence it should be receiving from our regulators that this status is being protected.

MAFBNZ response: MAFBNZ is committed to setting phytosanitary standards that protect the people, environment and economy of New Zealand, but do not unnecessarily restrict trade, as provided for in the World Trade Organisation Agreement on the Application of Sanitary and Phytosanitary Measures.

- 2.1.3. The risk analysis included a summary of a visit to China by Dr M Ormsby. There are clear warnings in Dr Ormsby's report that do not seem to be being paid the attention that they are due by the authors of the draft risk analysis.

MAFBNZ response: The risk analysis identifies options for managing the risk from each identified hazard and discusses the likely efficacy of the measures in relation to each hazard. Specific details of risk mitigation options that protect the people, environment and economy of New Zealand will be considered in the next stages of processing this market access request.

Please note that the purpose of the report was not to assess whether Biosecurity New Zealand's requirements can be met. This is because the risk associated with the commodity had not been assessed at the time of the visit and appropriate risk management measures had not been identified. The risk analysis identifies options for managing the risk from each identified hazard and discusses the likely efficacy of the measures in relation to each hazard. Page 13 of the risk analysis explains how the pear production system in China is taken into account in the risk assessments of potential hazard organisms. The assessments are made on the basis that the pear production and export process will be undertaken as described. However, elements such as bagging, airbrushing, and phytosanitary inspection, that may be critical in risk mitigation are not assumed to occur. They are considered separately as risk management options over and above standard commercial practice.

- 2.1.4. New Zealand climate – there is no comparative data given on daylength /solar radiation for pear production regions in China. This data needs to be included for comparative purposes.

MAFBNZ response: Detailed climate information can be helpful in assessing the likelihood of establishment, but only when detailed information on the biology and limiting ecological factors of a species are known. We have no evidence that including more climate information will change the conclusions of the assessments.

- 2.1.5. Organism interception records: Records from Ya pear importation indicate regular interceptions of live organisms at the New Zealand border. It is accepted by MAFBNZ for NZ export inspections that a random sample cannot intercept all possible risks then the data in Table 1 must be accepted as an indication of what is actually entering NZ. The IRA mentions pests are also intercepted on pears from Australia, Korea and the USA but no comparative data is presented to allow the reader to assess the relative importance of the data in table 1 – the reader must then assume the data to be damning.

MAFBNZ response: Interception records are included in the risk analysis (see p. 21) because they provide an indication of what is entering NZ on imported pears. The draft risk analysis explains that New Zealand also imports pears from Australia, Korea and the USA and there have been numerous border interception records on pears from these countries, particularly Hemiptera and mites. Interception records can be helpful in demonstrating an association between a particular lifestage or particular group of organisms and exported pears, and are

discussed where relevant in the risk assessments. However, some of the specific organisms associated with pears from these other countries will be different from those in China and for this reason these interception records have not been included in the draft risk analysis. Page 21 also explains why the records are not used quantitatively to compare pathways.

- 2.1.6. Section 4.13 Assumptions and uncertainties. The use of interception data to build a picture of efficiency of Chinese phytosanitary inspection is too late - it relies on NZ based risk. Stringent control and off shore strategies must be employed with interception data only being used as a back up for the efficacy any control and inspection strategies employed.

MAFBNZ response: The draft risk analysis uses available information to assess risk from organisms associated with *Pyrus* fruit. Significant uncertainties and associated assumptions are identified in the risk assessment for each potential hazard. Review of interception records collected once trade has commenced is a good way to test these assumptions as well as the efficacy of risk management measures. This is intended to be used as a review tool not as a primary risk mitigation measure. MAFBNZ will clarify this section of the analysis.

- 2.1.7. The process to arrive at the overall risk is not transparent and appears subjective. There is no definition of what constitutes the categories 'negligible to high risk' and how they are arrived at other than by some 'aggregation' of the sub-criteria: hazard identification, Risk assessment comprising entry – exposure – establishment and consequence assessment.

MAFBNZ response: Biosecurity New Zealand's risk analysis process is summarised in section 1.3 of the risk analysis. The full procedures are available on line at <http://www.biosecurity.govt.nz/files/pests-diseases/surveillance-review/risk-analysis-procedures.pdf>.

Risk is a product of likelihood (of entry, exposure and establishment) and the consequences of establishment. Separate assessment of each component of risk provides transparency of the contribution of each component. Risk management options have been identified for all organisms identified as having a non-negligible risk.

- 2.1.8. The document refers repeatedly to the small pear production sector in New Zealand and the apparently minor regard and consideration it is held in by MAFBNZ. This attitude by MAFBNZ is unacceptable and protection of the New Zealand *Pyrus* crop should be a key requirement of this document (e.g., [with reference to Nashi]... "This species is a relatively minor industry in New Zealand." Section 5.1.2.2 - Page 30). Additionally, many of the organisms are also able to transfer to other host crops grown in New Zealand.

MAFBNZ response: The ability of an organism to affect a range of crops is an important consideration in the consequence assessment for each potential hazard. Economic impacts are assessed in the context of New Zealand's economy. 8 of the 35 assessed hazards (*Alternaria geisen*, *Gymnosporangium fuscum*, *Phomopsis fukushii*, *Venturia nashicola*, *Aphanostigma iaksisense*, *Lepidosaphes*

pyrorum, *Acrobasis pirivorella*, *Euzophera pyriella*) have only been recorded from pears and no other hosts. The economic impact if they were to establish would be limited to the commercial and domestic pear growing industries. In the context of the overall New Zealand economy the consequences would be low. However, MAFBNZ recognises that the consequences for individual pear growers would be high. The relevant assessments will be modified to clarify this. Please note that risk management options are assessed for all hazards, including those assessed as having a low economic impact.

COMMENTS ON RISK MANAGEMENT MEASURES

- 2.1.9. Ethyl formate fumigation: China must present, at their cost, independently generated and internationally published data on the efficacy of this process on all life stages of target organisms to MAFBNZ and the pome fruit sector in NZ for evaluation and acceptance before it is acceptable as a post harvest treatment. Additionally the suitability of the product used at ambient and cool chain maintenance temperatures needs to be assessed in this process. Is there a NZ MRL established for this product?

MAFBNZ response: Fumigation with ethyl formate is explored as a risk mitigation option for organisms for which few risk management options are available (p.13). Nonetheless ethyl formate will be removed as an option from the summary table of risk management options in recognition that it is not currently available, and its efficacy is not fully understood.

- 2.1.10. Airbrushing will be unsuitable for any pathogens and hemipteroid insects, especially those that 'anchor' by inserting their stylet mouthparts and become immobile, or egg masses and pupae that are 'cemented' to the fruit in sheltered areas such as calyces. No proof of efficacy is provided for this method.

MAFBNZ response: This measure is expected to dislodge some organisms from the external surface of fruit and thereby reduce the risk (page 24 of the draft risk analysis). Airbrushing is not discussed as an option for pathogens. For organisms such as Diaspid scales the measure is considered to have an effect on the crawler life stages, but not on other life stages (see for instance p. 123).

- 2.1.11. Cold treatment: New Zealand authorities must keep all possible risk off shore. As worded section 4.7 is unacceptable – 'in transit' cold treatment places the risk on-shore NZ and thus the requirement for post treatment inspection in NZ. 'In transit' cold treatment should not be permitted. Inspection post treatment should occur in China by MAFBNZ accredited phytosanitary inspectors at China's cost.

MAFBNZ response: MAFBNZ seeks to manage risk offshore where-ever possible. In-transit cold treatment is in effect, offshore risk management since the treatment is applied prior to entry into New Zealand. MAFBNZ considers that in-transit cold treatment is an appropriate risk management measure in some circumstances.

- 2.1.12. Irradiation: The efficacy of irradiation as a disinfestation tool must be proven as recognised by MAFBNZ. China must present, at their cost, independently generated and internationally published data on the efficacy of this process on all life stages of target organisms to NZFSA, MAFBNZ and the pome fruit sector in NZ for evaluation and acceptance before it is acceptable as a post harvest treatment.

MAFBNZ response: Irradiation is an internationally recognised risk management measure (ISPM No. 18, 2003). It is therefore discussed as a possible measure for this pathway in chapter 4 of the draft risk analysis. However, irradiation of fresh pears has not been assessed and approved by Food Standards Australia New Zealand (FSANZ). It is therefore not currently available as a risk management option and it is not considered further in the risk analysis.

- 2.1.13. Ozone: China must present, at their cost, independently generated and internationally published data on the efficacy of this process on all life stages of target organisms to MAFBNZ and the pome fruit sector in NZ for evaluation and acceptance before it is acceptable as a post harvest treatment. Additionally the suitability of the product used at ambient and cool chain maintenance temperatures needs to be assessed in this process. Is there a NZ MRL established for this product?

MAFBNZ response: There appears to be potential to use ozone to disinfect pears of at least some life stages of surface pests (chapter 4 of the draft risk analysis). However because of the absence of demonstrated efficacy and information on its effect on pears, ozone is not considered further as a risk management measure in the risk analysis.

- 2.1.14. Visual inspection: New Zealand must insist on a pre-clearance programme at Chinese cost to ensure the integrity of the inspection process. There is no evidence provided as to the level and currency of phytosanitary training of Chinese inspectors. This also must be assessed by MAFBNZ before any reliance on them is accepted.

MAFBNZ response: MAFBNZ only undertakes pre-clearance off-shore for a few commodities at the request of the importers and with the support of the exporting country's National Plant Protection Organisation. There is no provision under international quarantine agreements to require pre-clearance.

MAFBNZ has no reason to doubt the ability of the Chinese National Plant Protection Organisation officers to undertake phytosanitary inspections and issue phytosanitary certificates. This process is governed by the International Plant Protection Convention (1997), Article V.2a of which states that: "*Inspection and other related activities leading to issuance of phytosanitary certificates shall be carried out only by or under the authority of the official national plant protection organization. The issuance of phytosanitary certificates shall be carried out by public officers who are technically qualified and duly authorized by the official national plant protection organization to act on its behalf and under its control with such knowledge and information available to those officers that the authorities of importing contracting parties may accept the phytosanitary certificates with confidence as dependable documents.*" Standards under the convention provide supporting guidance. In particular, ISPM No. 12 describes

principles and guidelines for the preparation and issue of phytosanitary certificates. ISPM No. 23 describes procedures for the inspection of consignments of plant products at import and export. It is focused on the determination of compliance with phytosanitary requirements, based on visual examination, documentary checks, and identity and integrity checks.

The summary table of risk management options will be amended to clarify that ‘visual inspection’ refers to formal phytosanitary inspection by AOSIQ officers prior to export.

- 2.1.15. In-field management: at no stage has MAFBNZ given proof that field management strategies are employed in China nor given examples of typical field management strategies employed by Chinese orchardists in controlling any pests or diseases.

MAFBNZ response: Pears are produced commercially in China using pest management systems designed to reduce the likelihood of fruit being infested with hazard organisms before export (summarised in Section 2.2.3 of the draft risk analysis). Whilst there is no quantitative assessment of the effect of these systems, they will reduce the prevalence of hazards on exported pears. The risk assessments for individual organisms are based on the understanding that all pears exported from China to New Zealand will follow these systems. Risk management measures over and above these standard commercial production systems are identified for the 35 organisms assessed as hazards on the pathway. Only in-field measures which have a specific, identifiable effect in mitigating risk from a particular hazard are considered as a risk mitigation option.

- 2.1.16. Frequent use of the statement in the IRA that“no measures in addition to standard commercial practice may be deemed acceptable.”...is unacceptable – they are not stated and may be non-existent.

MAFBNZ response: Five of the 35 hazard organisms were assessed to present a relatively low biosecurity risk. For these organisms, risk management options over and above standard commercial practice are identified. The draft analysis also notes that given the relatively low risk posed by these species, no measures in addition to standard commercial practice (summarised in section 2.2.3 of the risk analysis) may be deemed acceptable. No decision on whether to adopt additional measures has been made. Your view on this is noted.

- 2.1.17. Pest free areas must be established by AOSIQ and verified by MAFBNZ including an on going monitoring system to ensure continued pest free status at China’s cost.

MAFBNZ response: The international standard ISPM 4 describes the requirements for use of pest free areas as a quarantine measure, including verification. MAFBNZ will clarify that Pest-free areas will only be a viable option if pest freedom is verified in accordance with the requirements set out in ISPM4.

SPECIFIC COMMENTS (NOT ALREADY ADDRESSED)

Section 5.1 *Alternaria* spp.

- 2.1.18. *Alternaria* spp. are not currently addressed by pome fruit practices in NZ. We do not have appropriate chemistries to readily introduce to our production systems to address an infection.

MAFBNZ response: We will acknowledge this in the consequence assessment.

- 2.1.19. There is no discussion/recognition of the risk of the *Alternaria* spp to new inter-specific selections that are being developed.

MAFBNZ response: The *Pyrus pyrifolia* crosses in development are acknowledged in the consequence assessment. Until their success is demonstrated there is no basis on which to assume greater impacts.

- 2.1.20. Please explain 300x 1000x 2000x in the paragraph beginning “Ma and others 2007....”. Iprodione is not available for use in pome fruit in New Zealand and unacceptable in many markets.

MAFBNZ response: There is no suggestion that iprodione should be used in New Zealand. This section assesses the options for specific in-field measures (over and above standard commercial practice) in China.

- 2.1.21. Bagging of fruit is not an option as fruit could be infected before bagging. Delayed shipping of fruit is not an option as the quality of the fruit will be severely impacted at high temperature and humidity.

MAFBNZ response: The draft risk analysis notes that bagging may not occur until four weeks after fruit set. Nonetheless, it would be expected to significantly reduce opportunities for spores to land on fruit. In other words it will contribute to managing the risk by reducing the opportunities for infection of fruit. It will not eliminate the risk.

Section 5.2 *Gymnosporangium fuscum*

- 2.1.22. *G. fuscum* is one of the most significant pests of pear production in Europe. The alternate host *Juniperus* is present in the New Zealand rural landscape and therefore risk of infection establishing is real.

MAFBNZ response: Since *G. fuscum* is a heteroecious rust, and requires both *Juniperus* spp. and *Pyrus* spp. to complete its life cycle, exposure to suitable hosts would require the disposal of any contaminated imported fruit in the vicinity of the alternate host (*Juniperus* species). Several species, such as *Juniperus chinensis*, are widely grown as ornamentals in New Zealand. But large plantings of the alternate hosts do not occur together. In countries where this disease is a problem, the alternate hosts are grown in close proximity to pear orchards. Whilst, *Juniperus* spp. occur in rural areas in New Zealand, we have no evidence that they

are naturalised or wide spread (see for instance Salmon, 2000; Webb *et al.* 1998³).

- 2.1.23. There is no indication of what is standard field management practice to control this pest in China and therefore it is not good enough to state this is an acceptable level of control (page 39).

It is somewhat ironic that *Gymnosporangium fuscum* is included the mainland China list of actionable pests for produce sent to China. Ref. MAFBNZ China ICPR

MAFBNZ response: Pears are produced commercially in China using pest management systems designed to reduce the likelihood of fruit being infested with hazard organisms before export (summarised in Section 2.2.3 of the draft risk analysis). Whilst there is no quantitative assessment of the effect of these systems, they will reduce the prevalence of hazards on exported pears. The risk assessments for individual organisms are based on the understanding that all pears exported from China to New Zealand will follow these systems. Risk management measures over and above these standard commercial production systems are identified for *G. fuscum*.

Section 5.3 *Leptosphaeria pomona*

- 2.1.24. The risk assessment states that "...The likelihood of entry is considered to be negligible.." but this can only be considered true IF no fruit is permitted from Jiangsu Province and all other provinces in China are declared free of the disease by pest survey. The risk of impact of this disease entering New Zealand has to include that it is also hosted on apple.

MAFBNZ response: Risk management measures over and above standard commercial practice, can only be applied where there is an identified risk. *Leptosphaeria pomona* has only been recorded once on 'pears' [as '*Leptosphaeria pomica*'], in Jiangsu province in 1940. No more recent records have been found for this organism. The reference for it occurring on apples is Crane and Shearer (1991), who list (*Leptosphaerella pomona*) on the leaves of *Pyrus malus* [= *Malus domestica*]. However this reference is believed to refer to the original description of the fungus by Saccardo (1876), in Italy (Shaun Pennycook, Landcare Research, pers. comm., 2008). On the basis of this evidence (and no additional evidence has been presented) the likelihood of entry into New Zealand on pear fruit is considered to be negligible.

³ Salmon, J T (2000) The trees in New Zealand. Exotic trees. The Conifers. Reed Books, Auckland.

Webb, C J; Sykes, W R; Garnock-Jones, P J (1988) *Flora of New Zealand. Volume IV. Naturalised pteridophytes, gymnosperms, dicotyledons*. Botany Division DSIR, Christchurch

Section 5.5 *Monilinia fructigena*

- 2.1.25. The IRA incorrectly states (second bullet point) that “...it is widespread in China but likely to be reduced to fairly low levels through orchard management...” No evidence of satisfactory orchard management has been given and may not exist.

This pathogen also utilises apple as a host and the industry cannot rely on MAFBNZ statements as above without proof of programme.

MAFBNZ response: Pears are produced commercially in China using pest management systems designed to reduce the likelihood of fruit being infested with hazard organisms before export (summarised in Section 2.2.3 of the draft risk analysis). Whilst there is no quantitative assessment of the effect of these systems, they will reduce the prevalence of hazards on exported pears. The risk assessments for individual organisms are based on the understanding that all pears exported from China to New Zealand will follow these systems. Risk management measures over and above these standard commercial production systems are identified for *Monilinia fructigena*.

- 2.1.26. The economic impact of an incursion of this organism on exports of summerfruit (and presumptive pome fruit) to Australia has not been factored into the assessment. This is a serious pest of *Pyrus*, *Prunus* and *Malus* species. There are no readily available chemistries in the pome fruit sector to address this disease should it establish in New Zealand. This pathogen is considered by MAFBNZ to be a regulated high risk undesirable organism and simulated incursion response exercises have been held (Christchurch, June 2003) therefore a higher risk profile is warranted for this organism than stated in the IRA.

MAFBNZ response: the economic consequence assessment will explicitly include the impact on crops other than pears.

- 2.1.27. Assessment incomplete and incorrect – only a pest free status option for Xinjiang region is a potential option.

MAFBNZ response: The draft risk analysis discusses the range of available risk management options and concludes that offshore visual inspection in combination with bagging and in-field control and surveillance, whereby fruit from infected orchards are not permitted to be exported, is expected to be a viable option.

Section 5.6 *Mycosphaerella pyri*

2.1.28. "...*M. pyri* usually occurs in mid summer..... and is normally kept in check through scab (*Venturia*) control (Muller, 1951)." This statement raises several questions:

- Are the chemistries used during Muller's time of publication still in use?
- Are they still in use in China and in New Zealand (given China claims not to have *Venturia inaequalis* (apple scab)?)
- Under modern EU product use acceptability criteria, scab (*Venturia*) control in summer is very limited in New Zealand pome fruit production

MAFBNZ response: The paragraph relating to Muller (1951) will be deleted. The information relating to control that it contains has no relevance to the situation in China.

2.1.29. Entry Assessment page 51 "...Given the low level of infection on fruit and assuming standard production and post harvest practices in China...."

- On what basis can we assume standard production and post harvest practices in China given no proof of programme?
- "...The ascospores form the primary inoculum and are formed on dead leaves in winter...." This statement completely ignores that potential of pycnidial and conidial infection pathways on fruit or fruit stems [see section 5.6.2.1 Biology].

Risk Assessment page 51 Given the statements above for 5.6.2.1 then risk management measure CAN be justified.

MAFBNZ response: The negligible likelihood of entry is based on:

- *Mycosphaerella pyri* tends to be only found on the leaves;
- There is no evidence that pear fruit of the species and cultivars grown in China develop lesions;
- any infected fruit that may occur are likely to be removed during harvesting and packing operations;
- ascospores form the primary inoculum, and are formed on dead leaves during winter. They do not occur on fruit.

The risk assessment for *M. pyri* will be redrafted to better reflect the literature, but the conclusion that the likelihood of entry on mature pear fruit is negligible remains unchanged.

Section 6.1 *Harmonia axyridis*

2.1.30. Harlequin ladybird As a predatory coccinellid beetle all life stages of *Harmonia* are likely to be present in the orchard together until the adults aggregate to over-winter. Eggs, larvae and adults could occur on fruit. As a generalist predator this organism

poses a threat to New Zealand insect fauna. It would officially need thorough research to be able to establish this insect as a biocontrol agent in New Zealand (and its polyphagous nature would probably prevent this).

MAFBNZ response: Eggs are laid on leaves and we have no evidence that they occur on fruit. Larvae could theoretically occur on fruit, but adults are the most likely life-stage to be associated with fruit.

- 2.1.31. No option to manage the threat of entry of this insect is given. This organism has to be assigned a higher risk status and control requirements put in place at packing – physical examination of all fruit and removal by air brushing.

MAFBNZ response: All fruit are examined at the packhouse as part of standard commercial practice (see section 2.2.3). Bagging and formal quarantine inspection are identified as risk mitigation measures over and above standard commercial practice. Air brushing will be added as a risk management option for this species.

Section 6.2 *Rhyncites auratus*

- 2.1.32. Entry sites can become sites of disease entry.

MAFBNZ response: Noted.

- 2.1.33. The assumption stated that the impact on pear will be the same as for cherry cannot be made as pear fruit are significantly larger and the impact on the fruit more localised.

MAFBNZ response: Even though the size of the fruit is different there is no reason why infestation by *R. auratus* would not result in discoloration of fruit, and subsequent exclusion from the supply chain.

Section 7.1 *Bactrocera dorsalis*

- 2.1.34. Cold treatment. Data for longan and litchie fruits are unacceptable as substitutes for pear and China must prove at their cost to MAFBNZ and PNZI that the risk posed by this treatment is acceptable to New Zealand.

Were the larvae in the longan and litchi tests infested fruits or bioassays of free larvae?

Cold treatment in transit is unacceptable if the risk is to be maintained off shore.

MAFBNZ response: Both studies, involved inoculation of test fruit with eggs and larvae in the laboratory. The issue of in-transit cold treatment has been addressed in paragraph 2.1.11.

- 2.1.35. Bagging of fruit. Is there any proof that *B. dorsalis* cannot oviposit through the bag or the neck of the bag? If not, then bagging is not an acceptable option.

MAFBNZ response: Bagging is not suggested as a risk management option for this organism in the summary table of risk management options.

Section 7.2 *Contarinia pyrivora*

- 2.1.36. Cecidiomyids are typically quarantine pests infesting fruit 'accidentally'. They are difficult to remove and New Zealand currently has no chemistries that can be used on fruit to combat this insect. *Action is required in China to prevent entry to New Zealand*. There are no orchard management practices indicated in this IRA.

MAFBNZ response: Risk management measures over and above standard commercial practice, can only be applied where there is an identified risk. We have no evidence that any life stage would be associated with mature pear fruit either directly, or that their lifecycle is such that they are likely to be associated with imported fruit as a hitchhiker. The likelihood of entry is therefore considered to be negligible.

Please note that although *C.pyrivora* is not assessed as a hazard on this pathway and therefore risk management measures over and above standard commercial practice are not justified, it remains a 'regulated pest'. Therefore, if it is intercepted on any imported lots at the border the infested lot will be treated to ensure the pests are effectively controlled prior to release. Alternatively, the consignment shall be reshipped or destroyed at the importers option and expense.

Section 8.1 *Aphanostigma iakuisense*

- 2.1.37. Aphids with waxy secretions (powdery aphids, cabbage aphids and woolly apple aphids) are typically very difficult to manage with chemicals because they are protected by the waxy secretion.

MAFBNZ response: Noted.

- 2.1.38. No evidence is presented as to how Chinese growers protect their crops from these insects.

MAFBNZ response: In-field control is not proposed as risk management measure for this organism in the summary table of risk management options.

- 2.1.39. There is no statement as to the vectoring capability of these insects.

MAFBNZ response: This is addressed in section 8.1.2.4 of the draft risk analysis.

Section 8.2 *Aphis pomi*

- 2.1.40. *Aphis pomi* has to be reclassified as a hazard if not to pear then to apple. There is no economic impact assessment on the apple crop or exports.

Given that the relationship with *Pyrus* is uncertain then the risk of entry cannot be stated as negligible until certainty is able to be placed around the relationship.

MAFBNZ response: No economic impact assessment has been undertaken because the likelihood of entry on the pathway is assessed as negligible on the basis of the evidence available.

Please note that although *A.pomi* is not assessed as a hazard on this pathway and therefore risk management measures over and above standard commercial practice are not justified, it remains a ‘regulated pest’. Therefore, if it is intercepted on any imported lots at the border the infested lot will be treated to ensure the pests are effectively controlled prior to release. Alternatively, the consignment shall be reshipped or destroyed at the importers option and expense.

General comment about scale exposure assessments

- 2.1.41. The statement “...crawlers can be vulnerable to extremes of temperature and humidity, predation and other factors that result in mortality.....” while true is unacceptable in this context. From New Zealand experience with the scale insects we have attacking crops this statement also holds true but scale infestation of crops still happens.

Inclusion of such a general statement is unhelpful to the evaluation of the importance of scale insects and should be removed from all scale assessments.

MAFBNZ response: Dispersal of crawlers in an orchard situation is not comparable with dispersal from discarded imported fruit. Crawlers can be passively dispersed by wind from one plant to another during the short mobile period (approx. 24 hours). As the submitter acknowledges, crawlers have a low survival rate and the survival rate decreases with long distance wind dispersal. Low wind speeds at ground level will reduce the likelihood of dispersal to a suitable host, as will low survival rates of crawlers on the ground. There is a low probability of active dispersal of crawlers by walking from the imported fruit because they are not capable of rapid movement over bare soil and move over rough surfaces with extreme difficulty. Taken in combination, these factors support the conclusion that the likelihood of dispersal from fruit discarded in the environment is considered to be very low but non-negligible.

Section 8.9 *Leptosaphes pyrorum*

- 2.1.42. Given that the scales can be found on pear fruit, the scales at harvest are likely to have eggs, the scales are small, the scales could survive the cold temperatures of storage how can the risk of entry be low?

MAFBNZ response: The factors that reduce the likelihood of entry are that young growing tissue rather than fruit are the preferred plant part, and the species has limited distribution in China.

- 2.1.43. Bagging and visual inspection are deemed to be mitigation yet bagged fruit may already be infested. This is an unacceptable option. What are the field management options used in China?

MAFBNZ response: Bagging will prevent infestation over much of the growing season and will therefore reduce the risk. We have not identified in-field control over and above standard commercial practice as a risk management measure for this hazard.

Section 8.11 *Maconellicoccus hirsutus*

- 2.1.44. Give this is a polyphagous mealybug, with crawlers dispersed by wind this insect warrants closer inspection, especially calyx borne instars. No mitigation options are presented.

MAFBNZ response: Risk management measures over and above standard commercial practice, can only be applied where there is an identified risk. The likelihood of entry is assessed as negligible.

Please note that although *M.hirsutus* is not assessed as a hazard on this pathway and therefore risk management measures over and above standard commercial practice are not justified, it remains a 'regulated pest'. Therefore, if it is intercepted on any imported lots at the border the infested lot will be treated to ensure the pests are effectively controlled prior to release. Alternatively, the consignment shall be reshipped or destroyed at the importers option and expense.

Section 8.13 *Parlatoria oleae*

- 2.1.45. It is difficult to understand the assessment levels assigned to this insect.

Entry assessment. The bullet point statements are all 'high risk scenarios' yet the assessment is 'moderate'.

MAFBNZ response: Your view is noted.

- 2.1.46. Exposure assessment The bullet point statements are all 'high – moderate risk scenarios' yet the assessment is 'low'.

MAFBNZ response: See response at paragraph 2.1.41.

- 2.1.47. Risk Management – in-field management The stated agrichemicals are unacceptable should the insect become established in New Zealand.

MAFBNZ response: There is no suggestion that they should be used in New Zealand. This section assesses the options for specific in-field measures (over and above standard commercial practice) in China.

Section 8.13 *Parlatoria proteus*

2.1.48. There is no proof offered that *P. proteus* could not establish in the New Zealand climate. When initially introduced, *Phytoseulius persimilis* (Acari: Phytoseiidae) was deemed to only survive in glass house situations. Within a very short period of time it was found surviving well in the field.

MAFBNZ response: We have checked the sources for association of *Parlatoria proteus* with *Pyrus* spp. and the evidence is insufficient. *P. proteus* cannot therefore be considered a potential hazard and the risk assessment for this species will be removed from the risk analysis.

Section 8.18 *Pseudococcus comstocki*

2.1.49. This organism is currently actionable in several NZ pome fruit export markets. It is a serious pest of apple orchards in China and is found on a range of crops in China including *Pyrus*. If established in New Zealand it would also impact exports to Summerfruit and Citrus.

MAFBNZ response: The risk assessment takes account of these factors.

2.1.50. Exposure Assessment This organism cannot be considered to have a low likelihood of exposure, the bullet points on page 163 indicate it should be high given that:

- It already has a high interception rate at the NZ border
- it would survive transit
- it can readily disperse and is polyphagous

MAFBNZ response: The draft risk analysis considers these factors as well as the vulnerability of crawlers (the main dispersal life stage) to mortality and the lack of directional dispersal in reaching the conclusion that the likelihood of exposure is considered to be low but non-negligible.

2.1.51. Establishment Assessment This organism cannot be considered to have a moderate likelihood of establishment given the comments made for 8.18.2.2; The comments by Yamamura & Katsumata regarding its gregarious habits lead to a high probability for introduction in to new areas via trade due to the heightened likelihood of their locating a mate (1999 – cited on page 163 of the IRA).

MAFBNZ response: The draft risk analysis considers these factors as well as the requirement for a mated female or immatures of both sexes to establish a reproductive population in reaching the conclusion that the likelihood of exposure is considered to be moderate but non-negligible.

2.1.52. Consequent Assessment The whole assessment procedure for this organism highlights the lack of transparency in the MAFBNZ process. Under Environmental Consequences it states clearly "...in New Zealand sap sucking hemipterans such as

mealybugs are a high risk group particularly polyphagous species....” Yet several lines later this IRA states for *P. comstocki* “... *The potential environmental impact within New Zealand is uncertain but considered to be low to moderate....*” Yet *P. comstocki* is highly likely to arrive here, is highly likely to survive is polyphagous is gregarious and any life stage is likely to arrive in New Zealand thereby increasing the risk of a breeding population. A low to moderate assessment is untenable for this organism.

MAFBNZ response: The impact of an organism is not linked to its likelihood of arrival, exposure or establishment. The consequence assessment considers the impacts of establishment, assuming that the organism has established. The quote cited above is the opinion of the authors about a wide group of organisms. Their review was based on factors affecting the likelihood of this group of organisms becoming established, not just their anticipated impacts. Whilst mealybugs may be more likely than some other plant pests to have negative impacts on native flora, the scale of impacts on native species populations is likely to be low. This section will be redrafted to clarify how the conclusion was reached.

2.1.53. Risk Management Options Pest free status – only if continually monitored and assessed by MAFBNZ at Chinese expense

MAFBNZ response: We will modify this section to clarify that Pest Free Area status will only be an option if the organisms’ absence can be verified in accordance with ISPM 4.

2.1.54. In field management – the products indicated as being available for use in China are not available to NZ growers in the event of an incursion and are unacceptable to our other markets.

MAFBNZ response: There is no suggestion that they should be used in New Zealand. This section assesses the options for specific in-field measures (over and above standard commercial practice) in China.

Pseudococcus maritimus

2.1.55. Exposure assessment Indicated as having a wide host range including members of the Rosaceae of which pears are considered a primary host. The IRA appears to contradict its self with a moderate likelihood of entry but a low exposure assessment despite the comments on its polyphagous nature and that adult or nymphs are LIKELY to be present on fruit at harvest and their size means they may not be detected.

The likelihood of exposure must be raised to at least ‘moderate’.

MAFBNZ response: Entry and exposure are separate components of the pathway by which an organism could become established in New Zealand and the assessments of entry and exposure may therefore reach different conclusions. The risk analysis considers the factors you list as well as the vulnerability of crawlers (the main dispersal life stage) to mortality and the lack of directional dispersal in

reaching the conclusion that the likelihood of exposure is considered to be low but non-negligible.

- 2.1.56. Consequence assessment page Under Environmental Consequences it states clearly "...in New Zealand sap sucking hemipterans such as mealybugs are a high risk group particularly polyphagous species...." Yet several lines later this IRA states for *P. maritimus* "... The potential environmental impact within New Zealand is uncertain but considered to be low to moderate...." Yet *P. maritimus* is highly likely to arrive here, is highly likely to survive, is polyphagous, is gregarious and any life stage is likely to arrive in New Zealand thereby increasing the risk of a breeding population.

A low to moderate assessment is untenable for this organism.

MAFBNZ response: The impact of an organism is not linked to its likelihood of arrival, exposure or establishment. The consequence assessment considers the impacts of establishment, assuming that the organism has established. The quote cited above is the opinion of the authors about a wide group of organisms. Their review was based on factors affecting the likelihood of this group of organisms becoming established, not just their anticipated impacts. Whilst mealybugs may be more likely than some other plant pests to have negative impacts on native flora, the scale of impacts on native species populations is likely to be low. This section will be redrafted to clarify how the conclusion was reached.

- 2.1.57. Risk management Option Other than Ethyl Formate (comments made elsewhere in this submission) and pest free areas if these can be verified at Chinese expense, there are no mitigation options for this pest and therefore the status should be elevated to High Risk.

MAFBNZ response: Bagging and visual inspection are also identified as risk management options for this organism.

Section 10.3 *Adoxophyes orana*

- 2.1.58. Entry Assessment This is a highly damaging moth and stands to impact NZ pome fruit export markets if an incursion occurs. The bullet points in this section indicate a higher likelihood than the stated low risk of entry.

MAFBNZ response: Please note that impact is assessed independently from the likelihood of entry. We note that larvae can be present inside fruit, and the likelihood of entry can therefore be considered to be moderate.

- 2.1.59. Risk Management Options In-field control and management – comments regarding pheromone monitoring techniques are irrelevant if no commercially available pheromone lures are available. There is no indication as to whether such lures are available nor is there any indication of the actions Chinese producers would or do take to control this pest currently.

MAFBNZ response: This section assesses what could be imposed as a risk mitigation measure over and above standard commercial practice. Specific details will be considered in the next stages of processing this market access request.

Section 10.5 *Carposina sasakii*

- 2.1.60. Establishment assessment The first bullet point talks about *A. orana* not *C sasakii*. This section needs re-writing for the correct organism.

Given this may influence the outcome for *C sasakii* Section 10.5 needs a total review and reassessment.

MAFBNZ response: The reference to *A. orana* was an error, which will be corrected. We have reviewed the assessment for this species. Other than this typographical error there is no reason to change the assessment.

Section 10.7 *Conogethes punctiferalis*

- 2.1.61. Entry Assessment Given this is a nocturnal flyer and may shelter in packaging either require no night packing OR insect proofing of packing facilities along with insect free storage of packaging.

MAFBNZ response: All pack-houses of pears for export are registered by AQSIQ. This will be noted in the summary description of the proposed import pathway in the risk analysis. Registration includes a complete quality administration system including pest monitoring and control (AQSIQ 2007).

- 2.1.62. Risk Management Options Pest Free Area – review and replace this section given it refers to *C sasakii*.

MAFBNZ response: The reference to *C. sasakii* was an error, which will be corrected. We have reviewed the assessment for this species. Other than this typographical error there is no reason to change the assessment.

Section 10.9 *Cydia inopinata*

- 2.1.63. Establishment Assessment *Cydia inopinata* is an actionable pest for the New Zealand apple crop's largest overseas market. The implications to trade and cost of compliance for NZ growers is too large to ignore with the low risks indicated in the IRA for this pest.

MAFBNZ response: MAFBNZ has reviewed this assessment and taking account of the additional information you have provided on New Zealand's low

input systems, we consider the impact would more accurately be assessed as moderate to high.

- 2.1.64. Risk Management Options Pest free status of Xinjiang must be constantly monitored by MAFBNZ at Chinese expense

MAFBNZ response: This section will be modified to clarify that Pest Free Area status will only be an option if the organisms' absence can be verified in accordance with ISPM 4.

- 2.1.65. In-field control and management – comments regarding pheromone monitoring techniques are irrelevant if no commercially available pheromone lures are available. There is no indication as to whether such lures are available nor is there any indication of the actions Chinese producers would or do take to control this pest currently.

MAFBNZ response: This section assesses what could be imposed as a risk mitigation measure over and above standard commercial practice. Specific details will be considered in the next stages of the market access request.

Section 10.11 *Euzophera pyriella*

- 2.1.66. Exposure Assessment Given the statements in the two bullet points the risk of exposure cannot be defined as low as stated but at least moderate.

MAFBNZ response: This section will be redrafted to explain the consideration more clearly. In order for exposure to occur, infested imported fruit would need to be disposed of to the environment. Larvae in the fruit would have to leave the fruit and crawl to a suitable host. No information is available on the distance that larvae of this species are able to crawl. But it is not likely to be very far. Crawling larvae are likely to be vulnerable to predation. Since *E. pyriella* is monophagous a larva would have to find a pear tree. The overall likelihood of this sequence of events occurring is considered to be low and therefore non-negligible. Risk management options over and above standard commercial practice are assessed for this organism.

- 2.1.67. Establishment Assessment The climatic and topographic limitations to the range of *E. pyriella* in China are very similar to the climate and topography for Central Otago. The likelihood of establishment is therefore elevated to 'low – moderate' given Central Otago is the third largest pome fruit production region including pears in New Zealand.

MAFBNZ response: We agree that the climate of Central Otago is more similar to that of Xinjiang than the rest of New Zealand, although it is not as extreme. However it is a relatively small part of New Zealand. The descriptor will be changed from very low to low.

Section 10.12 *Hyphantria cunea*

- 2.1.68. Hazard Identification conclusion “.....*It is assumed that such fruit would not be harvested....*” The protection of New Zealand’s market access, production systems and environment cannot and must not rely on assumptions such as this. Clear statements such that infested fruit **MUST NOT** be harvested and lines of fruit with such infestations **CANNOT** be exported to New Zealand are required.

MAFBNZ response: There is no evidence that fruit encased in larval webs would be exported and therefore the conclusion, that *Hyphantria cunea* is not a potential hazard on this pathway remains unchanged. The section will be re-drafted.

Please note that although *H.cunea* is not assessed as a hazard on this pathway and therefore risk management measures over and above standard commercial practice are not justified, it remains a ‘regulated pest’. Therefore, if it is intercepted on any imported lots at the border the infested lot will be treated to ensure the pests are effectively controlled prior to release. Alternatively, the consignment shall be reshipped or destroyed at the importers option and expense.

Section 10.13 *Leucoptera malifoliella*

- 2.1.69. Exposure Assessment The comments in this section are inconsistent with the indicated risk. The ‘low’ risk likelihood needs to be lifted to ‘moderate to high’ given the statements in this section

MAFBNZ response: The draft risk analysis stated that pupae (the life stage most likely to enter on imported fruit) are not mobile. Any pupae on infested fruit will need to complete their development and hatch into adults which are capable of dispersing to a suitable host. The fruit will need to be disposed of in conditions that would allow development of any pupae. The overall likelihood of this sequence of events occurring is considered to be low and therefore non-negligible. Risk management options over and above standard commercial practice are assessed for this organism.

- 2.1.70. Establishment Assessment The comments in this section are inconsistent with the indicated risk. The ‘low’ risk likelihood needs to be lifted to ‘moderate to high’ given the statements in this section

MAFBNZ response: The requirement for sexual reproduction means that male and female individuals would need to be introduced at the same time and into the same area. The conclusion is that the likelihood of establishment is non-negligible and risk management options over and above standard commercial practice are assessed for this organism.

Section 10.16 *Oraesia spp. & Calyptra lata*

- 2.1.71. Given this is a nocturnal flyer and may shelter in packaging either require no night packing OR insect proofing of packing facilities along with insect free storage of packaging.

MAFBNZ response: All pack-houses of pears for export are registered by AQSIQ. We will note this in the summary description of the proposed import pathway in the risk analysis. Registration requires a complete quality administration system including pest monitoring and control (AQSIQ 2007).

Section 10.18 *Pandemis spp.*

- 2.1.72. Risk Management Options Bagging of fruit assessment does not take in to account the large size of the female moth and therefore the large size of her ovipositor to force eggs down the neck of the bag (a protected site) on to fruit.

MAFBNZ response: Bagging of fruit will not eliminate the risk from this organism. Nonetheless it is likely to reduce the risk.

- 2.1.73. No real risk mitigation is given and industry therefore has to see this as a high risk organism.

MAFBNZ response: Bagging and visual inspection (formal phytosanitary inspection by AQSIQ officers prior to export) are identified as risk management options for this organism. The combination of bagging and visual inspection will reduce the risk to a greater extent than either measure alone. This will be clarified.

Section 11.1 and 11.2 *Thrips flavus* and *Thrips hawaiiensis*

- 2.1.74. Entry Assessment Flower thrips can and do shelter in fruit calyces. The risk assessment should be lifted from 'negligible' to 'low'.

MAFBNZ response: No evidence has been found or presented that *Thrips flavus* or *Thrips hawaiiensis* occurs in the calyces of harvested pear fruit.

Please note that although *T. flavus* and *T. hawaiiensis* are not assessed as hazards on this pathway and therefore risk management measures over and above standard commercial practice are not justified, they remains 'regulated pests'. Therefore, if they are intercepted on any imported lots at the border the infested lot will be treated to ensure the pests are effectively controlled prior to release. Alternatively, the consignment shall be reshipped or destroyed at the importers option and expense.

Section 12.1 Acarina – Intercepted Mites - Hosts.

- 2.1.75. Tarsonemid, Tydeid and Tyrophagid mites are often related with poor hygiene at process facilities. Minimum hygiene standards for packing facilities handling pears

for New Zealand need to be stated by MAFBNZ (suggested minimum standard would be as required under the British Retail Consortia (BRC) standard.

MAFBNZ response: supply chain hygiene requirements are noted.

References to Chapter 12

2.1.76. Why was the 2004 version of the New Zealand Agrichemical Manual used instead of the latest version? There have been many changes to this manual in the intervening five years.

MAFBNZ response: This reference was included in the reference list in error. It was not used in the assessments. It will be removed from the list.

Appendix 2 Excluded Organisms. *Cacopsylla* species

2.1.77. These organisms should not be excluded from the Import Health Standard. In areas where *Cacopsylla pyricola* / *C pyri* complex occurs significant effort is needed to maintain tree health.

MAFBNZ response: Additional information on this group of species has been obtained. We have undertaken an assessment and concluded that they are hazards on the pathway and risk management measures can be justified.

2.1.78. I am currently in Virginia USA where they are having to deal with the effects of an incursion of brown marmorated stink bug (*Halyomorpha halys*). The MAFBNZ response to this organism in the Draft IRA is insufficient with respect to the potential damage and disruption this pest can cause and needs to be significantly reconsidered. This insect arrived in the NE states about 10 years ago on fresh produce from China. It is now not only a production system pest of tree fruits throughout the eastern seaboard states as far south as West Virginia/North Carolina – it is expected to invade South Carolina and Florida in the next few years. It is also a significant domestic nuisance pest, infesting homes and schools as aestivation sites. It causes significant disruption to school programmes as the children cannot go outside for breaks when this build up happens – state education department rulings apparently! It renders fruit unmarketable as the below skin damage is significantly more severe than what shows on the surface. It can only be controlled by pyrethroid applications which are unacceptable to NZ export production crops due to their disruption of beneficial insects. There are also major issues with this insect in Korea, Japan and China. NZ has to have a nil tolerance (not 0.5% MPL but a real nil tolerance of this organism.)

MAFBNZ response: We have not found any evidence that *Halyomorpha halys* entered the USA on fresh produce from China. As far as we can ascertain, it is not

known how it entered the States, but the most definitive evidence is in Hoebeke & Carter (2003)⁴ who report:

‘ North American interceptions of this exotic stink bug have been infrequent. For the period 1973-1987, only two interceptions of a species of Halyomorpha at US ports-of-entry were recorded in the USDA’s ‘List of Intercepted Plant Pests’; both were identified as Halyomorpha picus (probably H. halys). One was intercepted in an aircraft from Japan in 1983 and the other in baggage from Korea in 1984. For 1989 to 1998, the USDA-APHIS’s Port Information Network (PIN) database lists eight interceptions of Halyomorpha from China, Korea or Japan from aircraft, machinery and woodenware crating, machinery crating and miscellaneous cargo, and tractor soil.... Established populations of H. halys that were found in Eastern Pennsylvania might have originated from populations of over-wintering adults that were accidentally introduced with international commerce, i.e. from bulk freight containers from Japan, Korea or China.’

This hypothesis is consistent with our analysis of the organisms’ biology and ecology (see section 8.6 of the draft risk analysis). No new information has been provided to change the conclusion of the draft risk analysis that the likelihood of entry of *H. halys* on pears from China is considered to be negligible.

Nonetheless, the risk analysis states *‘A key assumption is that H. halys is likely to be transported internationally as a hitchhiker on commodities other than its host material. Since this is an important pest that is currently expanding its range it is important to clarify this uncertainty. This may be achieved by formally identifying any stinkbugs intercepted on imported commodities, whether host material or inanimate. If this assumption is incorrect this assessment will need to be revised.’*

Please note that although *H.halys* is not assessed as a hazard on this pathway and therefore risk management measures over and above standard commercial practice are not justified, it remains a ‘regulated pest’. Therefore, if it is intercepted on any imported lots at the border the infested lot will be treated to ensure the pests are effectively controlled prior to release. Alternatively, the consignment shall be reshipped or destroyed at the importers option and expense.

⁴ Hoebeke, ER; Carter, ME (2003) *Halyomorpha halys* (Stål)(Heteroptera: Pentatomidae): A polyphagous plant pest from Asia newly detected in North America. Proceedings of The Entomological Society of Washington 105 (1): 225-237.

2.2. MR. I. WALLACE, NASHI NZ INC

The submission from Nashi NZ Inc. is included in Appendix 1. The discussion below summarises the main points raised and gives MAF Biosecurity New Zealand's (MAFBNZ) responses to them.

- 2.2.1. MAFBNZ appear to ignore the warnings in the Ormsby report. His visit was very quick, included an extremely small representative sample and was at the wrong time of the year to properly assess their claims of being able to meet our requirements.

MAFBNZ response: Please note that the purpose of the report was not to assess whether Biosecurity New Zealand's requirements can be met. This is because the risk associated with the commodity had not been assessed at the time of the visit and appropriate risk management measures had not been identified. The risk analysis identifies options for managing the risk from each identified hazard and discusses the likely efficacy of the measures in relation to each hazard. Specific details of risk mitigation options that protect the people, environment and economy of New Zealand will be considered in the next stages of processing this market access request.

- 2.2.2. MAFBNZ have not provided a copy of or proof of Chinese management programmes for the organisms in the application country

MAFBNZ response: Pears are produced commercially in China using pest management systems designed to reduce the likelihood of fruit being infested with hazard organisms and pathogenic agents before export (summarised in Section 3 of the risk analysis). Page 13 of the risk analysis explains how the pear production system in China is taken into account in the risk assessments of potential hazard organisms. The assessments are made on the basis that the pear production and export process will be undertaken as described. However, elements such as bagging, airbrushing, and phytosanitary inspection, that may be critical in risk mitigation are not assumed to occur. They are considered separately as risk management options over and above standard commercial practice. The 35 organisms assessed as hazards on the pathway are assessed as justifying risk management measures over and above these standard production systems. Only measures which have a specific, identifiable effect in mitigating risk from a particular hazard are considered as risk mitigation measures.

- 2.2.3. MAFBNZ do not have a transparent, objective risk assessment system and in several places moderate to high risk on sub sets equates to low risk on that section

MAFBNZ response: Biosecurity New Zealand's risk analysis process is summarised in section 1.3 of the risk analysis. The full procedures are available on line at <http://www.biosecurity.govt.nz/files/pests-diseases/surveillance-review/risk-analysis-procedures.pdf>.

- 2.2.4. Risk is a product of likelihood (of entry, exposure and establishment) and the consequences of establishment. Separate assessment of each component of risk

provides transparency of the contribution of each component. Risk management options have been identified for all organisms identified as having a non-negligible risk.

MAFBNZ do not appear to follow full consequences to markets if an organism becomes established.

MAFBNZ response: No details of specific concerns have been given but please see response to Pipfruit New Zealand's comments.

2.2.5. MAFBNZ rely too much on unproven statements with respect to Chinese orchard management, inspection capability, unproven fumigation or cold storage disinfection and area freedoms

MAFBNZ response: As explained above, pears are produced commercially in China using pest management systems designed to reduce the likelihood of fruit being infested with hazard organisms and pathogenic agents before export (summarised in Section 3 of the risk analysis). Page 13 of the risk analysis explains how the pear production system in China is taken into account in the risk assessments of potential hazard organisms. The assessments are made on the basis that the pear production and export process will be undertaken as described. However, elements such as bagging, airbrushing, and phytosanitary inspection, that may be critical in risk mitigation are not assumed to occur. They are considered separately as risk management options over and above standard commercial practice. The 35 organisms assessed as hazards on the pathway are assessed as justifying risk management measures over and above these standard production systems. Only measures which have a specific, identifiable effect in mitigating risk from a particular hazard are considered as risk mitigation measures.

MAFBNZ has no reason to doubt the ability of the Chinese National Plant Protection Organisation officers to undertake phytosanitary inspections and issue phytosanitary certificates. This process is governed by the International Plant Protection Convention (1997), Article V.2a of which states that: "*Inspection and other related activities leading to issuance of phytosanitary certificates shall be carried out only by or under the authority of the official national plant protection organization. The issuance of phytosanitary certificates shall be carried out by public officers who are technically qualified and duly authorized by the official national plant protection organization to act on its behalf and under its control with such knowledge and information available to those officers that the authorities of importing contracting parties may accept the phytosanitary certificates with confidence as dependable documents.*" Standards under the convention provide supporting guidance. In particular, ISPM No. 12 describes principles and guidelines for the preparation and issue of phytosanitary certificates. ISPM No. 23 describes procedures for the inspection of consignments of plant products at import and export. It is focused on the determination of compliance with phytosanitary requirements, based on visual examination, documentary checks, and identity and integrity checks.

The international standard ISPM 4 describes the requirements for use of pest free areas as a quarantine measure, including verification. MAFBNZ will clarify that

Pest-free areas will only be a viable option if pest freedom is verified in accordance with the requirements set out in ISPM4.

Specific details of risk mitigation options that protect the people, environment and economy of New Zealand will be considered in the next stages of processing this market access request.

- 2.2.6. Biosecurity N.Z. appear to be relying on accepting ‘old, broad-spectrum chemistry’ will clean up the crop, this is a seriously flawed approach, in our move to IFP and low toxicity and low residues we have left this method behind, this is not available anymore.

MAFBNZ response: The assessments do not expect ‘old, broad-spectrum chemistry’ will be used. The consequence assessments are undertaken on the basis that no risk management will be undertaken in New Zealand. These assessments include direct impacts on production as well as a high level assessment of any impacts on export markets. These assessments do not specifically mention the impact on export market access of a switch from a low input regime. MAFBNZ will include this factor in the relevant consequence assessments.

- 2.2.7. The Ormsby report - In his Conclusions and Impressions he noted:

In reality the system is implemented to ensure all produce passes any official audits and failures prior to these audits are not recorded or reported. Most notably there seemed to be a constant theme of treating detected infestations as one-off occurrences rather than potential symptoms of more widespread contamination problems.

This area is of great concern to us as MAF BNZ cannot assess any pack house’s suitability for export to NZ based on records that are not transparent and accurate.

MAFBNZ response: Please note that the purpose of the report was not to assess whether Biosecurity New Zealand’s requirements can be met. This is because the risk associated with the commodity had not been assessed at the time of the visit and appropriate risk management measures had not been identified. The risk analysis identifies options for managing the risk from each identified hazard and discusses the likely efficacy of the measures in relation to each hazard. Page 13 of the risk analysis explains how the pear production system in China is taken into account in the risk assessments of potential hazard organisms. The assessments are made on the basis that the pear production and export process will be undertaken as described. The general packhouse procedures are considered to be standard commercial practice. However, elements such as airbrushing, and phytosanitary inspection, that may be critical in risk mitigation are not assumed to occur. They are considered separately as risk management options over and above standard commercial practice.

As explained above, the details of implementation of mitigation options will be considered in the next steps in the process of considering this market access request.

- 2.2.8. Any changes to the processing systems in the future should be taken into consideration when establishing any import requirements for New Zealand. *What are the conditions to cover this possibility occurring? What are the review triggers?* The two packing sheds that Dr. Ormsby visited appear not to be consistent in application of the processes.

MAFBNZ response: MAFBNZ periodically audits and reviews existing pathways and changes to processing systems in the future will be considered where appropriate during these reviews and audits. A review may be triggered due to a variety of reasons including an outbreak of a new pest/disease in the exporting country, interceptions of pests and diseases on imported consignments or new scientific research that shows a change in the profile of an existing pest.

- 2.2.9. The companies visited mostly seemed to be or once had been joint-venture companies and as such were probably the best examples available (showcase companies). How does this 2 day visit represent a fair assessment of the situation when it was a "showcase" procedure?

MAFBNZ response: The visit was not intended to be a full assessment of the system. The purpose was to visit examples of the production, processing and packaging sites.

- 2.2.10. The view of the NZ Pear industry (including Nashi) taken by the Dept appears to ignore the potential for the Pipfruit industry to grow and export into these markets. The industry has demonstrated in the past its ability to develop and capitalize on world demand for specialist and and boutique fruits alike, this is demonstrated in the table (below) showing NZ as the only Southern Hemisphere country to increase exports in 2009 and in particular with new Varieties.

The time taken to plant and develop new industry varies; new varieties developed in NZ for the international export trade will be placed in jeopardy by lack of real concern at the possibility of the spread of difficult to detect unwanted organisms.

MAFBNZ response: The risk analysis notes the potential of new varieties but cannot assess impacts on yet to be developed industries.

- 2.2.11. The disposal of infested fruit is noted but not taken seriously. Most fruit waste from the place of unpacking, Supermarket preparation rooms, is collected and goes into rural areas as stock feed being placed on the ground for eventual consumption by Pigs or other farmed animals.

MAFBNZ response: The disposal of imported fruit is a consideration in the assessment of exposure for every potential hazard. The assumption is that normal commercial practice is to reduce waste, but MAFBNZ will modify the pathway description to clarify that some fruit may be disposed of in rural areas.

- 2.2.12. Ian Turk (Nashi Growers Association NZ, pers. comm. 20 July 2008) notes that Hokuhi is also grown commercially.

Crosses such as Dan Bae (*P. pyrifolia* × *P. ussuriensis*) are available, and new crosses are expected to be released in approximately two years. These crosses are expected to be grown on a larger scale than nashi, and to be an alternative to European pears (Michael Butcher, Pipfruit NZ Inc., pers. comm. 17 June 2008).

The importance of this new development has not been recognized in the report.

Threats to these areas of development for the industry will be seriously impacted by the import of any one of many of the pests and diseases likely to be imported as passengers of imports of Chinese Pears into N.Z.

This would occur through the loss of our currently relatively “clean” spray program and the imposition of non tariff trade barriers.

In this regard the importance of export potential to Australia is not recognized.

MAFBNZ response: The potential of new varieties is noted in the draft risk analysis but impacts on yet to be developed industries cannot be assessed. However, the impact on export market access of a switch from a low input regime will be included in the relevant consequence assessments.

2.3. MR. Y. WANG, DIRECTOR, GENERAL ADMINISTRATION OF QUALITY SUPERVISION, INSPECTION AND QUARANTINE OF THE PEOPLE'S REPUBLIC OF CHINA (AQSIQ)

The submission from AQSIQ is included in Appendix 1. The discussion below summarises the main points raised and gives MAF Biosecurity New Zealand's (MAFBNZ) responses to them.

2.3.1. Oriental fruit fly (*Bactrocera dorsalis*)

As the temperature in northern China in winter is very low, the fruit production areas in northern China are non-viable areas for *Bactrocera dorsalis*. Beginning from 2000, China has established the nation-wide fruit fly monitoring system, and up to now no *Bactrocera dorsalis* has ever been detected in the fruit production areas in northern China. Currently many countries, including the US, Australia, Chile, South Africa and others, have all recognised that the fruit production areas in northern China are fruit-fly free areas. Therefore, we hope that you can take into account the above-mentioned facts, and recognise that the fruit production areas in northern China are fruit-fly free areas.

MAFBNZ response: The risk analysis reports the results of China's monitoring for *B.dorsalis* and identifies pest free area status as a possible risk management measure for this organism. Further analysis of this option will occur in the next steps of the process of considering this market access request.

2.3.2. With regard to New Zealand's proposed visit to China for technical field trips and discussions in late November, the Chinese side welcomes such a visit and will work with the New Zealand side to further discuss and determine the relevant programme arrangements.

MAFBNZ response: Thank you for this information.

2.3.3. About the risk management measures. Currently in China, all the orchards and packhouses for export fruit are registered with AQSIQ, and a sound quality management system has been established. For pears, the Chinese side will ensure that pears exported to New Zealand do not carry pests, through the integrated pest management and bagging techniques in place in the orchards, selection and high pressure air blowing undertaken at the packhouses, and pre-export official quarantine inspection.

MAFBNZ response: This system is discussed in the risk analysis. Further analysis of the components of the system will occur in the next steps of the process of considering this market access request.

2.3.4. Quarantine pest lists. Chinese experts believe that some pests mentioned in the draft risk analysis report released by New Zealand for importation of pears from China do not occur in the production areas of pears in China. Some other pests are

beneficial insects, such as predaceous mites, ladybugs and spiders, etc. These pests should not be listed as quarantine pests.

MAFBNZ response: We respond to each organism individually below.

- 2.3.5. *A. ventricosa* and *A. yaliinficiens* (new species of pear black spot bacteria) Firstly, this bacterium was intercepted by an American named Robert on Hebei Ya pears exported to the US. No report has been found about its occurrence on sand pears (*Pyrus pyrifolia*).

MAFBNZ response: The risk analysis acknowledges that these *Alternaria* spp. occur on *Pyrus bretschneideri*.

- 2.3.6. There are significant differences between China's research result and the conclusion of the US. The Chinese side believes that the bacterium intercepted by the US is *A. alternaria*, which commonly occurs around the world. China's research result has been published in the "Plant Quarantine". This should not be taken as a pest on sand pears (*Pyrus pyrifolia*) before an agreement is reached between experts of the two sides. Countries such as Canada, Australia and others do not list it as a quarantine pest.

MAFBNZ response: Please note that *A. yaalinficiens* is included on the list of hazards (regulated organisms) on the current Import Health Standard for Ya pears from China (Hebei and Shandong Provinces).

Please provide full details of the recent paper published on China's research into these organisms so that we can refer to it.

In addition, Sun and Zhang (2008)⁵ report that *Alternaria yaliinficiens* isolates have been collected from *Pyrus bretschneideri* in Hebei Province. We note that the fungi in the genus *Alternaria* are highly variable and that there are difficulties in distinguishing between them and that Yan et al. (2009)⁶ did not find *A. yaalinficiens* in the samples that they tested. Nonetheless, on the basis of the evidence available there is no reason to change the conclusion that *A. yaalinficiens* is a hazard on the pathway and that risk management measures can be justified.

⁵ Sun, X; Zhang, T Y (2008) Morphological and molecular characterization of *Alternaria* isolates on fruits of *Pyrus bretschneideri* Rehd. "Ya Li" *Mycostema* 27 (1)

⁶ Yan, J.; Shi, Z.; Huang, w.; Chen, Y.; Zhao, W. (2009) Identification of *Alternaria* isolates from Ya-pear fruits in Hebei and Shandong provinces. *Acta Phytopylacica Sinica* 36 (1) 37-46.

- 2.3.7. *Gymnosporangium fuscum* is one of the entry quarantine pests newly proclaimed by China in 2007. It is distributed only in Shanxi Province of China, and is currently under official control.

The bacterium mainly causes harm to leaves, and occasionally to young fruit. It causes fruit deformity and early falling off when serious infection occurs. The possibility of it infecting mature fruit is very low. Infected fruit can be easily removed during harvest and processing.

MAFBNZ response: Please note that *G. fuscum* is included on the list of hazards (regulated organisms) on the current Import Health Standard for Ya pears from China (Hebei and Shandong Provinces).

We have no information on the official control exercised by China for this organism and therefore cannot take it into account in the risk analysis. However, the risk analysis indicates that infected fruit are likely to be removed during harvesting and processing and this is a factor in the conclusion that the likelihood of entry is very low but non-negligible.

- 2.3.8. *Phomopsis fukushii* seldom occurs in China, and it mainly causes damages to tree trunk. It cannot spread with fruit.

MAFBNZ response: *Phomopsis fukushii* is included on the pest list for *Pyrus bretschneideri* and *Pyrus pyrifolia* supplied by AQSIQ to Biosecurity New Zealand as part of the technical information for exportation of Chinese fresh pears.

P. fukushii is included on the list of hazards (regulated organisms) on the current Import Health Standard for Ya pears from China (Hebei and Shandong Provinces).

In addition, Nasu (2005) describes fruit of *Pyrus pyrifolia*, *Pyrus bretschneideri* and *Pyrus communis* severely infested with *Phomopsis fukushii* in Japan. The risk analysis recognises that it is unlikely to have high prevalence in China and the likelihood of entry is therefore considered to be very low.

- 2.3.9. *Chrysomphalus dictyospermi* Pears is the secondary host of this pest, and there has been no report on it causing damages on pears. In addition, years of field investigation and research show no sign of its presence.

MAFBNZ response: *C. dictyospermi* is included on the list of hazards (regulated organisms) on the current Import Health Standard for Ya pears from China (Hebei and Shandong Provinces).

The risk analysis notes that *Pyrus* is not a major host and that no records of it damaging pear fruit have been found. However, the biology of the scale is such that crawlers could be present on harvested fruit, and the likelihood of entry is therefore assessed as low but non-negligible.

2.3.10. *Lepidosaphes conchiformis* does not occur in China.

MAFBNZ response: The risk analysis uses Scalenet as the reference for presence in China. Hua (2000)⁷ lists *L. conchiformis* as its synonym *Lepidosaphes ulmi* as occurring in Heilongjiang, Jilin, Liaoning, Gansu, Xinjiang, Ningxia, Henan, Shandong, Shanxi, Hebei, Hubei, Anhui, Jiangsu, Jiangxi, Shejiang, Fujian, Guangdong, Hunan, Guangxi, Sichuan, Yunan, Xizang with *Pyrus* as a host. Borchsenius (1958)⁸ describes *L. conchiformis* from Hubei Province.

2.3.11. *Lepidosaphes pyrorum* seldom occurs in China. Years of orchard field investigation and research show no sign of it either.

MAFBNZ response: The risk analysis uses Scalenet as a reference for presence in China. In addition Shi & Fan (1991)⁹ report its life cycle on *Pyrus* sp. in Shaanxi province; Hua (2000) lists it as present on *Pyrus* sp. in Shanxi and Henan and Xie (1982)¹⁰ lists it as present on *Pyrus* in Shanxi.

2.3.12. *Lopholeucaspis japonica* occurs in China, but does not cause harm to pears. Years of orchard field investigation and research show no sign of it either.

MAFBNZ response: *Lopholeucaspis japonica* is included on the list of hazards (regulated organisms) on the current Import Health Standard for Ya pears from China (Hebei and Shandong Provinces).

There are reports of *L. japonica* infesting pear trees in China (Gan and Zheng, 2007¹¹; Borchsenius, 1960¹²; Hua, 2000) and *Pyrus pyrifolia* in Japan (Muakami, 1970¹³). The risk analysis recognises that the likelihood of entry on pear fruit is low, because *Pyrus* is not a major host, but considers it to be non-negligible.

⁷ Hua, L Z (2000) List of Chinese Insects. Vol. 1 Zhongshan University Press, Guangzhou, China.

⁸ Borchsenius, N S (1958). Contribution to the coccid fauna of China. 3. Some new species of Lepidosaphini of coccid fauna of China (Homoptera, Coccoidea). *Acta Entomologica Sinica* 8: 168-178.

⁹ Shi, G; Fan, Y (1991) Study on the biological characteristics of *Lepidosaphes pyrorum* Tang and its control. *Plant Protection* (China), 17(6): 23

¹⁰ Xie, Y P (1982) The scale Insects of the forests and fruit trees in Shanxi of China. China Forestry Publishing House

¹¹ Gan, J B; Zheng, Q (2007) Bionomics and control of *Lopholeucaspis japonica*. *Chinese Bulletin of Entomology*. Department of Chinese Bulletin of Entomology 44(4): 578–580.

¹² Borchsenius, N S (1960) Contribution to the coccid fauna KNR [Chinese Peoples' Republic]. 4. Hard and soft scales, harmful fruit and grape culture in northeast and east KNR. *Acta Entomologica Sinica* 10: 214–218.

¹³ Murakami, Y (1970) A review of biology and ecology of Diaspine scales in Japan (Homoptera, Coccoidea). *Mushi* 43: 65–114.

2.3.13. *Parlatoria proteus* does not occur on pears in China.

MAFBNZ response: Having checked the sources for association with *Pyrus* spp. we consider that there is insufficient evidence for an association with pear fruit. *Parlatoria proteus* is therefore not considered a potential hazard and we will change the risk analysis accordingly.

2.3.14. *Dolycoris baccarum* occurs only in Henan Province, but pears is not its host. Years of orchard field investigation and research show no sign of it either.

MAFBNZ response: *Dolycoris baccarum* is included on the pest list for *Pyrus bretschneideri* and *Pyrus pyrifolia* supplied by AQSIQ to Biosecurity New Zealand as part of the technical information for exportation of Chinese fresh pears. *D. baccarum* is included on the list of hazards (regulated organisms) on the current Import Health Standard for Ya pears from China (Hebei and Shandong Provinces). In addition, Yu et al. (2002)¹⁴ describe the damage caused by this organism to pears in Henan Province. Hua (2000) lists *Pyrus* as a host and state that *D. baccarum* is present in Heilongjiang, Jilin, Liaoning, Inner Mongolia, Henan, Hebei, Shandong, Ningxia, Shaanxi, Gansu, Xinjiang, Hubei, Anhui, Jiangsu, Jiangxi, Zhejiang, Fujian, Guangdong, Hainan, Hunan, Guangxi, Guizhou, Sichuan, Yunnan, Xizang.

2.3.15. *Harmonia axyridis* occurs in China, but it is a predatory kind.

MAFBNZ response: Under Biosecurity New Zealand's risk analysis framework, the potential impacts of an organism are assessed against the range of values covered by the Biosecurity Act 1993, including the environment. The risk analysis has identified adverse impacts on native fauna. It is therefore considered a hazard.

2.3.16. *Planococcus kraunhiae* No report has been found on the presence of this insect in mainland China. New Zealand points out in the Risk Analysis Report that the insect is widely distributed in mainland China, and lists a literature reference Williams (2004). But that particular article cannot be found in the reference literature. Please provide detailed information or further verify the scope of distribution of this insect in China.

MAFBNZ response: We acknowledge this error and will correct it. The full reference is Williams, D J (2004) Mealybugs of southern Asia. The Natural History Museum London. The book reviews the taxonomy of the species, provides a description and some comments on its distribution. It states that *P. kraunhiae* is common in China. The holotype for *Planococcus siakwanensis* (synonymised by Cox, 1989 as *P. kraunhiae*) is stated to be from Yunan province.

¹⁴ Yu, C L; Jin, X F; Liu, X Q; Zhao, H Yi; Jin, C C; Sun, L H (2002) The damage caused by stink bug to the pear and its control. *China Fruits* 2002(2): 5–7.

2.3.17. *Pempelia heringii* No report has been found about its occurrence in China.

MAFBNZ response: The sources used in the risk analysis for the presence of *P. heringii* in China are Sun et al. (1992)¹⁵ which reports it in Shandong, and Zhang (1994)¹⁶ which reports it in ‘north-eastern’ China.

2.3.18. *Pseudococcus maritimus* There is no report about the occurrence of this insect in China in CPC (2007). China’s existing documents show that this insect is distributed only in Guangxi and Xinjiang of China, with no report about its occurrence in other areas. In addition, years of pear orchard field investigation and research show no sign of this insect.

MAFBNZ response: the risk analysis does not cite CPC (2007) as the source for the presence of *Pseudococcus maritimus* in China, it cites Abudujapa and Sun (2007)¹⁷. We also note that *P. maritimus* is included on the pest list for grapes supplied by AQSIQ to Biosecurity New Zealand as part of the technical information for exportation of Chinese table grapes. Abudujapa and Sun (2007) indicate that *P. maritimus* has only recently become a pest on grapes in Xinjiang province, China. Hua (2000) lists it as present in Shandong, Fujian, Guangdong, Guanxi, Jiangsu.

The sources for association with *Pyrus communis* include BenDov (1994)¹⁸; Smith et al. (2006)¹⁹; Beers et al. (2003)²⁰, Scalenet, CPC and Xie (1982)²¹, Hua (2000).

¹⁵ Sun, Z P; Wang, W; Meng, FY (1992) Survey of pests and diseases of Chinese hawthorn. *Bulletin of Agricultural Science and Technology* 1992(4): 25–26.

¹⁶ Zhang, B C (1994) *Index of economically important Lepidoptera*. CAB International, Wallingford, Oxon, UK. 599p

¹⁷ Abudujapa, T; Sun, Y (2007) Studies on the occurrence law and control methods of *Pseudococcus maritimus* (Ehrhorn) in Moyu County. *Xinjiang Agricultural Sciences* 44(4): 476–480.

¹⁸ Ben-Dov, Y (1994) *A systematic catalogue of the mealybugs of the world (Insecta: Homoptera: Coccoidea: Pseudococcidae and Putoidae) with data on geographical distribution, host plants, biology and economic importance*. Intercept Ltd, Andover.

¹⁹ Smith, T J; Dunley, J; Beers, E H; Brunner, J F; Grove, G G; Xiao, C L; Elfving, D; Peryea, F; Parker, R; Bush, M D C; Maxwell, T; Foss, S (2006) *2006 Crop Protection Guide for Tree Fruits in Washington*. Washington State University, Pullman.

²⁰ Beers, E H; Brunner, J F; Willett, M J; Warner, G M (1993) *Orchard pest management: A resource book for the Pacific northwest*. Good Fruit Grower; Washington; pp 72–199. Webpage: <http://jenny.tfrec.wsu.edu/opm/toc.php> Accessed May 2008.

²¹ Xie, Y P (1982) *The scale Insects of the forests and fruit trees in Shanxi of China*. China Forestry Publishing House

2.3.19. *Kleemannia* sp. does not occur in China.

Proctolaelaps sp. occurs in China, but no report has been found on it causing damages to pears. Years of orchard field investigation and research show no sign of it either.

Tydeus sp. Beneficial insect. The possibility of it spreading with pear fruit is very low.

Tyrophagus sp. An important mite damaging stored goods and edible fungi worldwide. In addition, New Zealand has not specified it down to the species.

MAFBNZ response: Repeated interceptions of food mites on pears from China, indicates that there are opportunities for the supply chain to be contaminated. Since, many of the intercepted mites are not identified to species level, chapter 12 of the risk analysis will only address *Tarsonemus yali*.

2.3.20. *Tarsonemus yali* No report has been found about its occurrence in China.

MAFBNZ response: *Tarsonemus yali* is a newly described species that was intercepted on *Pyrus bretschneideri* imported from China. The holotype collected by J.Z. Lin in Taishan, Shandong province is reportedly deposited in the Plant Protection Institute Collection, Fujian Academy of Agricultural Sciences, Fuzhou (Lin and Zhang, 2006)²².

2.3.21. *Aphanostigma iaksuiense* Presently there is no report about the occurrence of this insect in China. New Zealand believes that this insect is distributed in areas including Anhui, Beijing, Hebei, Jiangsu, Liaoning, Sichuan, Shandong, Yunnan, Zhejiang, etc., and lists the literature references: Fang, 1980; Tai et al, 2004; Zhang and Zhong, 1983. But the Chinese side has not found any information about this insect in these pieces of reference literature. Please verify the detailed scope of distribution of this insect in China.

MAFBNZ response: *Aphanostigma iaksuiense* is included on the pest list for *Pyrus bretschneideri* and *Pyrus pyrifolia* supplied by AQSIQ to Biosecurity New Zealand as part of the technical information for exportation of Chinese fresh pears.

A. iaksuiense is included on the list of hazards (regulated organisms) on the current Import Health Standard for Ya pears from China (Hebei and Shandong Provinces).

In addition, the English abstract of Fang (1980)²³ states ‘*Aphanostigma iaksuiense* (Kishida) is a serious aphid pest in Jinchuan Xian, Sichuan Province. There are

²² Lin, J Z; Zhang, Z Q (2006) A key to *Tarsonemus* females (Acari: Tarsonemidae) in China and description of a new species intercepted in New Zealand. *Systematic and Applied Acarology* 11(2): 181–193.

²³ Fang, T L (1980) A preliminary observation on *Aphanostigma jakusuiense* (Kishida). *Acta Entomologica Sinica* 23 (4): 389-393.

nine generations a year and all develop on pear trees...’ Tai et al. (2004)²⁴ discusses the presence of the species in pear groves in Yunan Province. Hua (2000) includes Liaoning, Shanxi, Shaanxi, Hebei, Henan, Shandong, Anhui, Jiangsu and Sichuan in the distribution list for this species.

²⁴ Tai, Y M; Fu, Y; Yang, B L; Chen, G H; Tao, M (2004) Studies on the quantity dynamic of pear aphids and their natural enemy in Kunming region. *Southwest China Journal of Agricultural Sciences* 17(3): 337–339.

Appendix 1 Copies of submissions

SUBMISSION on the Draft Import Risk Analysis for *Pyrus* fresh fruit from China dated 07 August 2009

Submitted by: Dr M R Butcher
Technical Manager

Contact Details: Landline Direct: 06 8737086
Landline Office: 06 8737080
Cellular: 021 406 018
Email: mike.butcher@pipfruitnz.co.nz

Submitted on behalf of: Pipfruit NZ Inc.
P O Box 11094
HASTINGS

Submission dated: 07 September 2009

SUBMISSION - General Comments

Pipfruit NZ Inc.:

Pipfruit NZ Inc. is the pipfruit (pome fruit; apples pears and Nashi) industry body representing 454 growers producing from 9,046 ha, 70 packers and 93 exporters.

The industry produces approximately 350,000 Tonnes of apples, pears and Nashi annually and exports over 70% of production to over 65 markets internationally. The annual value of the industry to the New Zealand economy is approximately NZ\$600 million comprising export income and value to the regional economies of Hawke's Bay, Nelson and Central Otago.

New Zealand pome fruit growers are recognised internationally as producers of high quality, safe fruit with low phytosanitary risk. This is possible in-part because of the absence from our shores of many of the serious pests and diseases that infect or infest pome fruit species introduced into New Zealand. These pests and diseases require high levels of intervention thereby restricting adoption of the type of innovative production practices common in New Zealand, in other parts of the world.

The key markets for New Zealand require fruit with minimal or zero pesticide residues. To meet these requirements New Zealand producers have adopted low pesticide input integrated production practices. Incursions related to imports can seriously compromise New Zealand's ability to meet these key market requirements. Incursions may also require the use of chemistries currently long abandoned in New Zealand pome fruit production thereby compromising our production methods and philosophies.

It is critical New Zealand maintains and protects this unique status in pome fruit and other crops. As written, the **draft Import Risk Analysis for *Pyrus* fresh fruit from China** does little to give the sector the confidence it should be receiving from our regulators that this status is being protected.

The Risk Analysis document:

Pipfruit NZ Inc. would like to thank MAFBNZ for the opportunity to comment on this draft document. PNZI is concerned however, that MAFBNZ has limited the response time to 1 month from release for a detailed 460 page document. This practice is unacceptable given the level of detailed review that has to occur in addition to other activities with the pome fruit sector during spring.

Dr M Ormsby Report appended to the IRA:

The document also included a summary of a visit to China by Dr M Ormsby. There are quite clear warnings in Dr Ormsby's report that do not seem to be being paid the attention they are due by the authors of the **draft Import Risk Analysis for *Pyrus* fresh fruit from China**.

Many of these are outlined in the section '*Conclusions and Impressions*' (pages 446-447 of the Risk Analysis).

Dr Ormsby comments "*If we relied on their systems to manage risks we would need to ensure that they did not pervert the system into disguising or otherwise hiding risk from those undertaking audit and compliance.*" (page 451 of the Risk Analysis). This must draw the quality of the Chinese systems into question especially when coupled with the first sentence in '*Conclusions and Impressions*' point 4 "*There also seems to be some cultural based denial that mistakes can happen, systems are not perfect and there is no such thing as zero risk. All company representatives and many CIQ officers maintained there had never been any failures (pests detected). In reality the system is implemented to ensure all produce passes an official audit and failure prior to these audits are not recorded or reported*" (page 446 of the Risk Analysis).

The attitude to risk management seemed cavalier "*The company representative stated that "finding pests in the orchard was important but not during processing".* (page 454 of the Risk Analysis).

The quality of phytosanitary inspection appears superficial: "*When asked about pests found, a company representative mentioned that only Alternaria gaisen (black spot) is detected occasionally, but not in the processing facility (in the orchard).* (Point 6, page 456 of the Risk Analysis).

There was an the absence of mention that load out in the companies visited was conducted in a pest free environment.

There was an absence of mention of internal movement control of produce between regions within China that are currently stated as being free of particular pests or disease. Area freedom cannot be used as a risk management option under such lack of movement control.

Dr Ormsby's report clearly identified an export phytosanitary system that is lacking in integrity, is operated by people who cannot admit error or mistakes and may in fact attempt to hide these or not record or report them, a denial of the importance of phytosanitary inspection at the packing phase and potential integrity of the packed crop awaiting shipment.

Specific comments on the draft Import Risk Analysis for *Pyrus* fresh fruit from China

Executive Summary Table 1 page 4 Ethyl Formate fumigation

China must present, at their cost, independently generated and internationally published data on the efficacy of this process on all life stages of target organisms to MAFBNZ and

the pome fruit sector in NZ for evaluation and acceptance before it is acceptable as a post harvest treatment.

Additionally the suitability of the product used at ambient and cool chain maintenance temperatures needs to be assessed in this process.

Is there a NZ MRL established for this product?

Section 2.2.3.2 page 13 Distribution and use within New Zealand

Arrival of Chinese pears in New Zealand would occur between October and January. This period is a key sensitive period for pests and diseases in export crops. Plant tissue is young, tender and attractive as a host, is easily infected by disease under moist spring and early summer conditions with increasing temperatures. In short the fruit is arriving in New Zealand at a very high risk period in our production cycle.

Section 2.5 page 17 New Zealand Climate

There is no comparative data given on daylength / solar radiation for pear production regions in China. This data needs to be included for comparative purposes.

Section 3.1 page 20 The Hazard Identification Process

There does not appear to be an impact report for each organism with respect sensitivity of New Zealand's current markets on the establishment of Chinese pests in New Zealand.

Section 3.2 Table 1 page 21 Review of Organism Interception records

Records from Ya pear importation indicate regular interceptions of live organisms at the New Zealand border. It is accepted by MAFBNZ for NZ export inspections that a random sample cannot intercept all possible risks then the data in Table 1 must be accepted as an indication of what is actually entering NZ. The IRA mentions pests are also intercepted on pears from Australia, Korea and the USA but no comparative data is presented to allow the reader to assess the relative importance of the data in table 1 – the reader must then assume the data to be damning.

Section 4.6 page 24 Airbrushing

This process will be unsuitable for any pathogens and hemipteroid insects, especially those that 'anchor' by inserting their stylet mouthparts and become immobile, or egg masses and pupae that are 'cemented' to the fruit in sheltered areas such as calyses. No proof of efficacy is provided for this method.

Section 4.7 page 25 Cold treatment

New Zealand authorities must keep all possible risk off shore. As worded this section is unacceptable – 'in transit' cold treatment places the risk on-shore NZ and thus the requirement for post treatment inspection in NZ. 'In transit' cold treatment should not be permitted. Inspection post treatment should occur in China by MAFBNZ accredited phytosanitary inspectors at China's cost.

Section 4.8 page 25 Irradiation

The efficacy of irradiation as a disinfestation tool must be proven as recognised by MAFBNZ. China must present, at their cost, independently generated and internationally published data on the efficacy of this process on all life stages of target organisms to NZFSA, MAFBNZ and the pome fruit sector in NZ for evaluation and acceptance before it is acceptable as a post harvest treatment.

Section 4.10 page 25 Ethyl Formate

China must present, at their cost, independently generated and internationally published data on the efficacy of this process on all life stages of target organisms to MAFBNZ and the pome fruit sector in NZ for evaluation and acceptance before it is acceptable as a post harvest treatment.

Additionally the suitability of the product used at ambient and cool chain maintenance temperatures needs to be assessed in this process.

Is there a NZ MRL established for this product?

Section 4.11 pages 26-27 Ozone

China must present, at their cost, independently generated and internationally published data on the efficacy of this process on all life stages of target organisms to MAFBNZ and the pome fruit sector in NZ for evaluation and acceptance before it is acceptable as a post harvest treatment.

Additionally the suitability of the product used at ambient and cool chain maintenance temperatures needs to be assessed in this process.

Is there a NZ MRL established for this product?

Section 4.12 page 27 Visual Inspection

Given Dr Ormsby comments *“If we relied on their systems to manage risks we would need to ensure that they did not pervert the system into disguising or otherwise hiding risk from those undertaking audit and compliance.”* (page 451 of the Risk Analysis). This must draw the quality of the Chinese systems into question especially when coupled with the first sentence in *‘Conclusions and Impressions’ point 4 “There also seems to be some cultural based denial that mistakes can happen, systems are not perfect and there is no such thing as zero risk. All company representatives and many CIQ officers maintained there had never been any failures (pests detected). In reality the system is implemented to ensure all produce passes and official audits and failure prior to these audits are not recorded or reported”* (page 446 of the Risk Analysis).

Then New Zealand must insist on a preclearance programme at Chinese cost to ensure the integrity of the inspection process. There is no evidence provided as to the level and currency of phytosanitary training of Chinese inspectors. This also must be assessed by MAFBNZ before any reliance on them is accepted.

Section 4.13 page 27 Assumptions and uncertainties

Given the statements in Dr Ormsby’s report, this section is surprisingly brief. The use of interception data to build a picture of efficiency of Chinese phytosanitary inspection is too late - it relies on NZ based risk. Stringent control and off shore strategies must be employed with interception data only being used as a back up for the efficacy any control and inspection strategies employed.

At no stage has MAFBNZ given proof that field management strategies are employed in China nor given examples of typical field management strategies employed by Chinese orchardists in controlling any pests or diseases. Frequent use of the statement in the IRA that *“...”no measures in addition to standard commercial practice may be deemed acceptable.”...is unacceptable – they are not stated and may be non-existent.*

Section 5 page 29 Risk Assessment – General

The process to arrive at the overall risk is not transparent and appears subjective. There is no definition of what constitutes the categories ‘negligible to high risk’ and how they are arrived at other than by some ‘aggregation’ of the sub-criteria: hazard identification, Risk assessment comprising entry – exposure – establishment and consequence assessment.

Consideration does not seem to have been given to any actions that will be required if any Chinese organisms raise incursions in New Zealand. Our low input programmes would

potentially be destroyed as has happened with the tomato IFP programme following the incursion of Tomato-Potato Psyllid into NZ. The NZ export pome fruit industry cannot sustain such a loss of programme.

New Zealand also may not have available the appropriate chemistries to combat such incursions.

The document refers repeatedly to the small pear production sector in New Zealand and the apparently minor regard and consideration it is held in by MAFBNZ. This attitude by MAFBNZ is unacceptable and protection of the New Zealand *Pyrus* crop should be a key requirement of this document (e.g., [with reference to Nashi]...”This species is a relatively minor industry in New Zealand.” Section 5.1.2.2 - Page 30) Additionally, many of the organisms are also able to transfer to other host crops grown in New Zealand.

Section 5.1 *Alternaria* spp.

Section 5.1.1.1 NZ Status page 29 A high incidence of *Alternaria* rots on *Pyrus* from China is documented (Roberts, 2005). *Alternaria* are not a genus that is currently addressed by pome fruit production practices in NZ. We do not have appropriate chemistries to readily introduce to our production systems to address an infection.

Section 5.1.1.2 Biology page 30 There is no discussion/recognition of the risk of the *Alternaria* spp to new inter-specific selections that are being developed.

Section 5.1.3.1 In-field control and Surveillance Page 34
Please explain 300x 1000x 2000x in the paragraph beginning “Ma and others 2007....”.

Iprodione is not available for use in pome fruit in New Zealand and unacceptable in many markets.

Bagging of fruit is not an option as fruit could be infected before bagging. Delayed shipping of fruit is not an option as the quality of the fruit will be severely impacted at high temperature and humidity.

These organisms are not “low risk” and therefore actions “in addition to standard field management” is required. There is no indication as to what ‘standard field management entails and therefore this statement is of little value and unacceptable.

Section 5.2 *Gymnosporangium fuscum* European Pear Rust

G. fuscum is one of the most significant pests of pear production in Europe. The alternate host *Juniperus* is present in the New Zealand rural landscape and therefore risk of infection establishing is real.

Section 5.2.3.1 Risk Management page 38

Pest free areas, excluding Shaanxi, to be established by AQSIQ and verified by MAFBNZ including an on going monitoring system to ensure continued pest free status at China’s cost.

Doubt has already been cast of the quality of **visual inspection** practices in China by Dr Ormsby (Section 4.12 page 27). There is no indication of what is standard field

management practice to control this pest in China and therefore it is not good enough to state this is an acceptable level of control (page 39).

It is somewhat ironic that *Gymnosporangium fuscum* is included the mainland China list of actionable pests for produce sent to China. Ref. MAFBNZ China ICPR

Section 5.3 *Leptosphaeria pomona* Fruit rot

Section 5.3.2 Risk Assessment states that "...The likelihood of entry is considered to be negligible.." but this can only be considered true IF no fruit is permitted from Jiangsu Province and all other provinces in China are declared free of the disease by pest survey. The risk of impact of this disease entering New Zealand has to include that it is also hosted on apple.

Section 5.5 *Monilinia fructigena* European brown rot

Section 5.5.2 Risk Assessment Page 46

Section 5.5.2.1 Entry Assessment page 46 The IRA incorrectly states (second bullet point) that "...it is widespread in China but likely to be reduced to fairly low levels through orchard management...." No evidence of satisfactory orchard management has been given and may not exist.

This pathogen also utilises apple as a host and the industry cannot rely on MAFBNZ statements as above without proof of programme.

The economic impact of an incursion of this organism on exports of summerfruit (and presumptive pome fruit) to Australia has not been factored into the assessment. This is a serious pest of *Pyrus*, *Prunus* and *Malus* species. There are no readily available chemistries in the pome fruit sector to address this disease should it establish in New Zealand.

This pathogen is considered by MAFBNZ to be a regulated high risk undesirable organism and simulated incursion response exercises have been held (Christchurch, June 2003) therefore a higher risk profile is warranted for this organism than stated in the IRA.

Assessment incomplete and incorrect – only a pest free status option for Xinjiang region is a potential option.

Section 5.6 *Mycosphaerella pyri* Pear leaf fleck

Section 5.6.1.2 Biology page 50 "...*M pyri* usually occurs in mid summer..... and is normally kept in check through scab (*Venturia*) control (Muller, 1951)." This statement raises several questions:

- Are the chemistries used during Muller's time of publication still in use?
- Are they still in use in China and in New Zealand (given China claims not to have *Venturia inaequalis* (apple scab)?)
- Under modern EU product use acceptability criteria, scab (*Venturia*) control in summer is very limited in New Zealand pome fruit production

Section 5.6.2.1 Entry Assessment page 51 "...Given the low level of infection on fruit and assuming standard production and post harvest practices in China...."

- On what basis can we assume standard production and post harvest practices in China given no proof of programme?
- "...The ascospores form the primary inoculum and are formed on dead leaves in winter..." This statement completely ignores that potential of pycnidial and conidial infection pathways on fruit or fruit stems [see section 5.6.2.1 Biology].

Section 5.6.2.2 Risk Assessment page 51 Given the statements above for 5.6.2.1 then risk management measure CAN be justified.

Section 6.1 *Harmonia axyridis* Harlequin ladybird

Section 6.1.2.1 Entry Assessment page 66 As a predatory coccinellid beetle all life stages of *Harmonia* are likely to be present in the orchard together until the adults aggregate to over-winter. Eggs, larvae and adults could occur on fruit. As a generalist predator this organism poses a threat to New Zealand insect fauna. It would officially need thorough research to be able to establish this insect as a biocontrol agent in New Zealand (and its polyphagous nature would probably prevent this).

No option to manage the threat of entry of this insect is given. This organism has to be assigned a higher risk status and control requirements put in place at packing – physical examination of all fruit and removal by air brushing.

Section 6.2 *Rhyncites auratus* Cherry Weevil

Section 6.2.1.2 Biology page 70 Entry sites can become sites of disease entry.

Section 6.2. 2.1 Entry Assessment page 71 The assumption stated that the impact on pear will be the same as for cherry cannot be made as pear fruit are significantly larger and the impact on the fruit more localised.

Section 7.1 *Bactrocera dorsalis* Oriental fruit Fly

Section 7.1.3.1 Cold treatment page 83 Data for longan and litchee fruits are unacceptable as substitutes for pear and China must prove at their cost to MAFBNZ and PNZI that the risk posed by this treatment is acceptable to New Zealand.

Were the larvae in the longan and litchi tests infested fruits or bioassays of free larvae?

Cold treatment in transit is unacceptable if the risk is to be maintained off shore.

Section 7.1.3.1 Bagging of fruit page 83 Is there any proof that *B. dorsalis* cannot oviposit through the bag or the neck of the bag? If not, then bagging is not an acceptable option.

Section 7.2 *Contarinia pyrivora* pear midge

Cecidiomyids are typically quarantine pests infesting fruit 'accidentally'. They are difficult to remove and New Zealand currently has no chemistries that can be used on fruit to combat this insect. **Action is required in China to prevent entry to New Zealand.** There are no orchard management practices indicated in this IRA.

Section 8.1 *Aphanostigma iakuisense* Powdery Pear Aphid

The process to arrive at the overall risk is not transparent and appears subjective. There is no definition of what constitutes the categories 'negligible to high risk' and how they are arrived at other than by some 'aggregation' of the sub-criteria: hazard identification, Risk assessment comprising entry – exposure – establishment and consequence assessment.

Section 8.1.2.4 Economic consequences page 92 It is unacceptable to assign a low impact to a small sector - the impact of an incursion would be significant to that sector. MAFBNZ need to protect New Zealand cropping systems.

Section 8.1.3.1 In-field management page 94 Aphids with waxy secretions (powdery aphids, cabbage aphids and woolly apple aphids) are typically very difficult to manage with chemicals because they are protected by the waxy secretion.

No evidence is presented as to how Chinese growers protect their crops from these insects.

There is no statement as to the vectoring capability of these insects.
See earlier comments regarding Ethyl Formate fumigation.

Section 8.2 *Aphis pomi* Green Apple Aphid

Aphis pomi has to be reclassified as a hazard if not to pear then to apple. There is no economic impact assessment on the apple crop or exports.

Given that the relationship with *Pyrus* is uncertain then the risk of entry cannot be stated as negligible until certainty is able to be placed around the relationship.

Section 8.9 *Leptosaphes pyrorum* Zhejiang oyster scale

The process to arrive at the overall risk is not transparent and appears subjective. There is no definition of what constitutes the categories 'negligible to high risk' and how they are arrived at other than by some 'aggregation' of the sub-criteria: hazard identification, Risk assessment comprising entry – exposure – establishment and consequence assessment.

Section 8.9.2.1 Entry Assessment page 126 Given that the scales can be found on pear fruit, the scales at harvest are likely to have eggs, the scales are small, the scales could survive the cold temperatures of storage how can the risk of entry be low?

Section 8.9.3.1 Risk management page 128 Bagging and visual inspection are deemed to be mitigation yet bagged fruit may already be infested. This is an unacceptable option. What are the field management options used in China?

General comment about scale exposure assessments used

The statement "...crawlers can be vulnerable to extremes of temperature and humidity, predation and other factors that result in mortality....." while true is unacceptable in this context. From New Zealand experience with the scale insects we have attacking crops this statement also holds true but scale infestation of crops still happens.

Inclusion of such a general statement is unhelpful to the evaluation of the importance of scale insects and should be removed from all scale assessments.

Section 8.11 *Maconellicoccus hirstus* Pink Hibiscus Mealybug

Section 8.11.2.1 Entry Assessment page 136 Give this is a polyphagous mealybug, with crawlers dispersed by wind this insect warrants closer inspection, especially calyx borne instars.

No mitigation options are presented.

Section 8.13 *Parlatoria oleae* Olive scale

The process to arrive at the overall risk is not transparent and appears subjective. There is no definition of what constitutes the categories 'negligible to high risk' and how they are arrived at other than by some 'aggregation' of the sub-criteria: hazard identification, Risk assessment comprising entry – exposure – establishment and consequence assessment.

It is difficult to understand the assessment levels assigned to this insect.

Section 8.13.2.1 Entry assessment page 142 the bullet point statements are all 'high risk scenarios' yet the assessment is 'moderate'

Section 8.13.2.2 Exposure assessment page 142 the bullet point statements are all 'high – moderate risk scenarios' yet the assessment is 'low'

Section 8.13.3.1 Risk Management – in-field management page 144 The stated agrichemicals are unacceptable should the insect become established in New Zealand.

Section 8.13 *Parlatoria proteus* Cattleya scale

Section 8.14.2.3 Establishment Assessment page 147 There is no proof offered that *P proteus* could not establish in the New Zealand climate. When initially introduced, *Phytoseulius persimilis* (Acari: Phytoseiidae) was deemed to only survive in glass house situations. Within a very short period of time it was found surviving well in the field.

Section 8.18 *Pseudococcus comstocki* Comstock mealybug

This organism is currently actionable in several NZ pome fruit export markets. It is a serious pest of apple orchards in China and is found on a range of crops in China including *Pyrus*. If established in New Zealand it would also impact exports to Summerfruit and Citrus.

The process to arrive at the overall risk is not transparent and appears subjective. There is no definition of what constitutes the categories 'negligible to high risk' and how they are arrived at other than by some 'aggregation' of the sub-criteria: hazard identification, Risk assessment comprising entry – exposure – establishment and consequence assessment.

Section 8.18.2.2 Exposure Assessment page 163 This organism cannot be considered to have a low likelihood of exposure, the bullet points on page 163 indicate it should be high given that:

- It already has a high interception rate at the NZ border
- it would survive transit
- it can readily disperse and is polyphagous

Section 8.18.2.3 Establishment Assessment page 163-4 This organism cannot be considered to have a moderate likelihood of establishment given the comments made for 8.18.2.2; The comments by Yamamura & Katsumata regarding its gregarious habits lead to a high probability for introduction in to new areas via trade due to the heightened likelihood of their locating a mate (1999 – cited on page 163 of the IRA).

Change the Exposure risk to high.

Section 8.18.2.4 Consequent Assessment page 164 The whole assessment procedure for this organism highlights the lack of transparency in the MAFBNZ process.

Under **Environmental Consequences** it states clearly "...in New Zealand sap sucking hemipterans such as mealybugs are a high risk group particularly polyphagous species...." Yet several lines later this IRA states for *P. comstocki* "... *The potential environmental impact within New Zealand is uncertain but considered to be low to moderate....*" Yet *P. comstocki* is highly likely to arrive here, is highly likely to survive is polyphagous is gregarious and any life stage is likely to arrive in New Zealand thereby increasing the risk of a breeding population.

A low to moderate assessment is untenable for this organism.

Section 8.18.3 1 Risk Management Options

Pest free status – only if continually monitored and assessed by MAFBNZ at Chinese expense

Ethyl Formate – comments as previously stated

In field management – the products indicated as being available for use in China are not available to NZ growers in the event of an incursion and are unacceptable to our other markets.

Section 8.19 Pseudococcus maritimus Ocean mealybug

The process to arrive at the overall risk is not transparent and appears subjective. There is no definition of what constitutes the categories 'negligible to high risk' and how they are arrived at other than by some 'aggregation' of the sub-criteria: hazard identification, Risk assessment comprising entry – exposure – establishment and consequence assessment.

Section 8.19.2.2 Exposure assessment page 169

Indicated as having a wide host range including members of the Rosaceae of which pears are considered a primary host. The IRA appears to contradict its self with a moderate likelihood of entry but a low exposure assessment despite the comments on its polyphagous nature and that adult or nymphs are LIKELY to be present on fruit at harvest and their size means they may not be detected.

The likelihood of exposure must be raised to at least 'moderate'.

Section 8.19.2.4 Consequence assessment page 170

Under **Environmental Consequences** it states clearly "...in New Zealand sap sucking hemipterans such as mealybugs are a high risk group particularly polyphagous species...." Yet several lines later this IRA states for *P. maritimus* "... *The potential environmental impact within New Zealand is uncertain but considered to be low to moderate....*" Yet *P. maritimus* is highly likely to arrive here, is highly likely to survive, is polyphagous, is gregarious and any life stage is likely to arrive in New Zealand thereby increasing the risk of a breeding population.

A low to moderate assessment is untenable for this organism.

Section 8.19.3.1 Risk management Option page 171

Other than Ethyl Formate (comments made elsewhere in this submission) and pest free areas if these can be verified at Chinese expense, there are no mitigation options for this pest and therefore the status should be elevated to High Risk

Section 10.3 *Adoxophyes orana* Summer fruit tortrix moth

The process to arrive at the overall risk is not transparent and appears subjective. There is no definition of what constitutes the categories 'negligible to high risk' and how they are arrived at other than by some 'aggregation' of the sub-criteria: hazard identification, Risk assessment comprising entry – exposure – establishment and consequence assessment.

Section 10.3.2.1 Entry Assessment page 198 This is a highly damaging moth and stands to impact NZ pome fruit export markets if an incursion occurs. The bullet points in this section indicate a higher likelihood than the stated low risk of entry.

Section 10.3.3.1 Risk Management Options page 201

In-field control and management – comments regarding pheromone monitoring techniques are irrelevant if no commercially available pheromone lures are available. There is no indication as to whether such lures are available nor is there any indication of the actions Chinese producers would or do take to control this pest currently.

Section 10.5 *Carposina sasakii* Peach fruit Borer

Section 10.5.2.3 Establishment assessment page 210

The first bullet point talks about *A. orana* not *C sasakii*.. This section needs re-writing for the correct organism.

Given this may influence the outcome for *C sasakii* Section 10.5 needs a total review and reassessment.

Section 10.7 *Conogethes punctiferalis* Yellow Peach Moth

Section 10.7.2.1 Entry Assessment page 217 Given this is a nocturnal flyer and may shelter in packaging either require no night packing OR insect proofing of packing facilities along with insect free storage of packaging.

Section 10.7.3.1 Risk Management Options page 220

Pest Free Area – review and replace this section given it refers to *C sasakii*

Section 10.9 *Cydia inopinata* Manchurian fruit moth

The process to arrive at the overall risk is not transparent and appears subjective. There is no definition of what constitutes the categories 'negligible to high risk' and how they are arrived at other than by some 'aggregation' of the sub-criteria: hazard identification, Risk assessment comprising entry – exposure – establishment and consequence assessment.

Section 10.9.2.3 Establishment Assessment page 226

Cydia inopinata is an actionable pest for the New Zealand apple crop's largest overseas market. The implications to trade and cost of compliance for NZ growers is too large to ignore with the low risks indicated in the IRA for this pest.

Section 10.9.3.1 Risk Management Options page 227

Pest free status of Xinjiang must be constantly monitored by MAFBNZ at Chinese expense

In-field control and management – comments regarding pheromone monitoring techniques are irrelevant if no commercially available pheromone lures are available. There is no indication as to whether such lures are available nor is there any indication of the actions Chinese producers would or do take to control this pest currently.

Section 10.11 ***Euzophera pyriella*** **Pyralid moth**

The process to arrive at the overall risk is not transparent and appears subjective. There is no definition of what constitutes the categories 'negligible to high risk' and how they are arrived at other than by some 'aggregation' of the sub-criteria: hazard identification, Risk assessment comprising entry – exposure – establishment and consequence assessment.

Section 10.11.2.2 **Exposure Assessment** **page 231** Given the statements in the two bullet points the risk of exposure cannot be defined as low as stated but at least moderate.

Section 10.11.2.3 **Establishment Assessment** **page 232**

The climatic and topographic limitations to the range of *E. pyriella* in China are very similar to the climate and topography for Central Otago.

The likelihood of establishment is therefore elevated to 'low – moderate' given Central Otago is the third largest pome fruit production region including pears in New Zealand.

Section 10.12 ***Hyphantria cunea*** **Fall webworm**

Section 10.12.1.6 **Hazard Identification conclusion** **page 235**

".....It is assumed that such fruit would not be harvested...." The protection of New Zealand's market access, production systems and environment cannot and must not rely on assumptions such as this. Clear statements such that infested fruit MUST NOT be harvested and lines of fruit with such infestations CANNOT be exported to New Zealand are required.

Section 10.13 ***Leucoptera malifoliella*** **Pear Leaf Miner**

The process to arrive at the overall risk is not transparent and appears subjective. There is no definition of what constitutes the categories 'negligible to high risk' and how they are arrived at other than by some 'aggregation' of the sub-criteria: hazard identification, Risk assessment comprising entry – exposure – establishment and consequence assessment.

Section 10.13.2.2 **Exposure Assessment** **Page 238**

The comments in this section are inconsistent with the indicated risk. The 'low' risk likelihood needs to be lifted to 'moderate to high' given the statements in this section

Section 10.13.2.3 **Establishment Assessment** **Page 238**

The comments in this section are inconsistent with the indicated risk. The 'low' risk likelihood needs to be lifted to 'moderate to high' given the statements in this section

Section 10.16 ***Oraesia spp. & Calyptra lata*** **Fruit Piercing Moths**

Section 10.16.2.1 **Entry Assessment** **page 246** Given this is a nocturnal flyer and may shelter in packaging either require no night packing OR insect proofing of packing facilities along with insect free storage of packaging.

Section 10.18 ***Pandemis spp.*** **Fruit Tree Tortrix**

Section 10.18.3.1 **Risk Management Options** **Page 254**

Bagging of fruit assessment does not take in to account the large size of the female moth and therefore the large size of her ovipositor to force eggs down the neck of the bag (a protected site) on to fruit.

No real risk mitigation is given and industry therefore has to see this as a high risk organism.

Section 11.1 *Thrips flavus* Honeysuckle Thrips

Section 11.1.2.1 Entry Assessment page 283

Flower thrips can and do shelter in fruit calyses. The risk assessment should be lifted from 'negligible' to 'low'

Section 11.2 *Thrips hawaiiensis* Hawaiian Flower Thrips

Section 11.2.2.1 Entry Assessment page 283

Flower thrips can and do shelter in fruit calyses. The risk assessment should be lifted from 'negligible' to 'low'

Section 12.1 Acarina – Intercepted Mites

Section 12.1.1.3 Hosts page 288

Tarsonemid, Tydeid and Tyrophagid mites are often related with poor hygiene at process facilities. Minimum hygiene standards for packing facilities handling pears for New Zealand need to be stated by MAFBNZ (suggested minimum standard would be as required under the British Retail Consortia (BRC) standard.

References to Chapter 12

Page 305 Why was the 2004 version of the New Zealand Agrichemical Manual used instead of the latest version? There have been many changes to this manual in the intervening five years.

Appendix 2 Excluded Organisms

Cacopsylla species These organisms should not be excluded from the Import Health Standard. In areas where *Cacopsylla pyricola* / *C pyri* complex occurs significant effort is needed to maintain tree health.

The following is taken from <http://www.ipm.ucdavis.edu/PMG/r603301111.html> on 3 September 2009 at 1304 hours NZ Standard Time.

DESCRIPTION OF THE PEST

Pear psylla is one of the most serious insect pest of pears because of its ability to develop [resistance](#) to insecticides and vector the pathogen that causes pear decline.

Overwintering pear psylla adults are somewhat darker and larger (0.125 inch or 3 mm) than summer adults (0.08 inch or 2 mm). [Adults](#) hold their transparent wings rooflike over their dark to reddish brown bodies when at rest; they resemble tiny cicadas. A dark spot on the top middle edge of both wings helps to distinguish pear psylla from other psylla. Tiny, elongated yellowish [eggs](#), which are barely visible without a hand lens, are laid on or near fruit spurs starting in late January or early February. As buds open, females lay eggs along midribs and petioles of developing leaves or on stems and leaves of blossoms. Pear psylla nymphs pass through five instars, four of which are almost completely encased in honeydew. When first hatched, the tiny [nymphs](#) are yellow with red eyes and black antennae. The third

stage is yellowish green and the fourth greenish brown. The fifth instar is called the [hardshell stage](#) and it is dark with prominent wing pads.

DAMAGE

Generally, pear psylla is a greater problem on European varieties than on Asian varieties. Pear psylla damages pears in several ways. Loss of crop and tree vigor, and sometimes loss of trees, can occur from pear decline disease, caused by a phytoplasma organism that psylla injects into pear trees. Pear decline has varying effects on the trees depending on variety, rootstock, quality of the growing site, and pear psylla numbers. Honeydew, produced by psylla nymphs as they feed, drops onto fruit. A [black sooty mold](#) grows on the honeydew and the fruit skin russets, which downgrades fruit for fresh market use. Psylla feeding and injection of a toxin into the tree causes portions of the leaf blade to blacken, and leaves to yellow and sometimes fall. Growth and productivity of the tree can be severely reduced for one or more seasons.

SUBMISSION on the Draft Import Risk Analysis for *Pyrus* fresh fruit from China dated 09 August 2009

Submitted by: Mr I Wallace
Chair, Nashi New Zealand inc

Contact Details: Landline: 07 829 5848
Email: imwallace@xtra.co.nz

Submitted on behalf of: Nashi New Zealand (Nashi Growers Association)
C/- Pipfruit NZ Inc.
P O Box 11094
HASTINGS

Submission dated: 08 September 2009

The New Zealand Nashi Growers Association fully supports the detailed submission made by Pipfruit NZ Inc. on the draft Import Risk Analysis for *Pyrus* fresh fruit from China.

Nashi, although a low volume crop, has significant potential for growth in NZ, both for export and local demand, the returns per Ha are greater than apples or European pears and it has considerable potential for industry development even if not recognized at present.

Nashi in NZ is subject to very few pests and diseases, can be grown with very low chemical input and therefore high potential for organic development, this low pest status demands the highest level of protection. The risks to this low input production system, by the potential introduction of unwanted organisms associated with *Pyrus* fruits from China is substantial. This would destroy the potential of this crop in New Zealand.

The New Zealand Nashi Growers Association Are concerned with the MAFBNZ draft Import Risk Analysis for *Pyrus* fresh fruit from China on several counts:

1. MAFBNZ appear to ignore the warnings in the Ormsby report. His visit was very quick, included an extremely small representative sample and was at the wrong time of the year to properly assess their claims of being able to meet our requirements.
2. MAFBNZ have not provided a copy of or proof of Chinese management programmes for the organisms in the application country
3. MAFBNZ do not have a transparent, objective risk assessment system and in several places moderate to high risk on sub sets equates to low risk on that section
4. MAFBNZ do not appear to follow full consequences to markets if an organism becomes established.
5. MAFBNZ rely too much on unproven statements with respect to Chinese orchard management, inspection capability, unproven fumigation or cold storage disinfestation and area freedoms
6. Biosecurity N.Z. appear to be relying on accepting 'old, broad-spectrum chemistry' will clean up the crop, this is a seriously flawed approach, in our move to IFP and low toxicity and low residues we have left this method behind, this is not available anymore.

1 ; The Ormsby report

In his *Conclusions and Impressions* he noted ;

- *In reality the system is implemented to ensure all produce passes any official audits and failures prior to these audits are not recorded or reported. Most notably there seemed to be a constant theme of treating detected infestations as one-off occurrences rather than potential symptoms of more widespread contamination problems.*

This area is of great concern to us as MAF BNZ cannot assess any pack house's suitability for export to NZ based on records that are not transparent and accurate.

- *Any changes to the processing systems in the future should be taken into consideration when establishing any import requirements for New Zealand.*

What are the conditions to cover this possibility occurring? What are the review triggers?

In his visit to the packing sheds he noted;

- **Shed 1** *All fruit is visually "inspected" by staff during debagging and any fruit that is infested is disqualified" from the export system. If pests are detected on the fruit or in the water trap all of the fruit from the affected lot are re-inspected for pests.*
- **Shed 2** *If pests are detected during visual inspection the fruit is sent back to the first person for another airbrush.*

These two packing sheds appear not to be consistent in application of the processes.

- *The companies visited mostly seemed to be or once had been joint-venture companies and as such were probably the best examples available (showcase companies).*

How does this 2 day visit represent a fair assessment of the situation when it was a "showcase" procedure?

The Main Report section part 2.2.1 states;

“Commodity production

The fruit from pear trees is ranked as the third most important fruit crop in the world, in terms of exports (Chen, 2000). World pear trade is dominated by Argentina and China on the export side and Russia and the EU on the import side.”

The view of the NZ Pear industry (including Nashi) taken by the Dept appears to ignore the potential for the Pipfruit industry to grow and export into these markets. The industry has demonstrated in the past its ability to develop and capitalize on world demand for specialist and and boutique fruits alike, this is demonstrated in the table (below) showing NZ as the only Southern Hemisphere country to increase exports in 2009 and in particular with new Varieties.

The time taken to plant and develop new industry varies; new varieties developed in NZ for the international export trade will be placed in jeopardy by lack of real concern at the possibility of the spread of difficult to detect unwanted organisms.

part 2.2.3.2 states;

Distribution and use within New Zealand

*Fruit that is culled or unsold by wholesalers and retailers is likely to be to be put into a rubbish bin or skip (closed or open) and be taken to landfill. Waste disposed of by consumers is likely to be **discarded in domestic or public rubbish bins, compost, rubbish dumps or randomly onto the roadside or in reserves.** In rural areas pear waste may be used as animal feed. Infested fruit/remains disposed of as*

bagged waste into landfill or into sewage via domestic waste disposal would have a negligible likelihood of exposure to suitable hosts in New Zealand.

The disposal of infested fruit is noted but not taken seriously. Most fruit waste from the place of unpacking, Supermarket preparation rooms, is collected and goes into rural areas as stock feed being placed on the ground for eventual consumption by Pigs or other farmed animals.

2.4 The New Zealand pear industry

2.4.1 Pear production

Ian Turk (Nashi Growers Association NZ, pers. comm. 20 July 2008) notes that Hokuhi is also grown commercially.

*Crosses such as Dan Bae (*P. pyrifolia* × *P. ussuriensis*) are available, and new crosses are expected to be released in approximately two years. These crosses **are expected to be grown on a larger scale than nashi, and to be an alternative to European pears** (Michael Butcher, Pipfruit NZ Inc., pers. comm. 17 June 2008).*

The importance of this new development has not been recognized in the report.

Threats to these areas of development for the industry will be seriously impacted by the import of any one of many of the pests and diseases likely to be imported as passengers of imports of Chinese Pears into N.Z.

This would occur through the loss of our currently relatively “clean” spray program and the imposition of non tariff trade barriers.

In this regard the importance of export potential to Australia is not recognized.

Ian Wallace
Chair,
Nashi New Zealand Inc.

**General Administration of Quality Supervision, Inspection and Quarantine of
the People's Republic of China**

(Translation)

To Mr Douglas Birnie, Director Policy and Risk, Biosecurity New Zealand, Ministry
of Agriculture and Forestry

**Comments on the Draft Risk Analysis Reports for Importation of Pears and
Grapes from China to New Zealand**

Dear Mr Douglas Birnie,

I am pleased to receive your letters dated 10 August 2009 about the issuance of the draft risk analysis reports for importing pears and grapes from China. I would like to express my gratitude for your work to progress the importation of pears and grapes from China to New Zealand. After deliberation, the Chinese side hereby provides the following comments on the drafts:

I. About the oriental fruit fly (*bactrocera dorsalis*)

As the temperature in northern China in winter is very low, the fruit production areas in northern China are non-viable areas for *bactrocera dorsalis*. Beginning from 2000, China has established the nation-wide fruit fly monitoring system, and up to now no *bactrocera dorsalis* has ever been detected in the fruit production areas in northern China. Currently many countries, including the US, Australia, Chile, South Africa and others, have all recognised that the fruit production areas in northern China are fruit-fly free areas. Therefore, we hope that you can take into account the above-mentioned facts, and recognise that the fruit production areas in northern China are fruit-fly free areas.

II. About the quarantine pest lists

Chinese experts believe that some pests mentioned in the draft risk analysis reports released by New Zealand for importation of pears and grapes from China do not occur in the production areas of pears and grapes in China. Some other pests are beneficial insects, such as predaceous mites, ladybugs and spiders, etc. These pests should not be listed as quarantine pests (see Annex 1 and 2).

III. About the risk management measures

Currently in China, all the orchards and packhouses for export fruit are registered with AQSIQ, and a sound quality management system has been established.

For pears, the Chinese side will ensure that pears exported to New Zealand do not carry pests, through the integrated pest management and bagging techniques in place in the orchards, selection and high pressure air blowing undertaken at the packhouses, and pre-export official quarantine inspection.

For grapes, the Chinese side believes that *eupoecilia ambiguella*, *maconellicoccus hirsutus*, *pseudococcus maritimus* and *conogethes punctiferalis* do not occur in the grape production areas in China. The possibility of grapes carrying these pests is very low. Therefore, it is not necessary to take such quarantine measures as

methyl bromide and sulfur dioxide fumigation and cold treatment on grapes to be exported to New Zealand. In addition, bagging management is applied on export grapes in China during the fruit growing period, which greatly reduces the risks of pests causing damages and being carried with fruit.

We hope that New Zealand will give full consideration to the above-mentioned comments presented by the Chinese side, and complete the quarantine access procedures within the specified timeframe.

With regard to New Zealand's proposed visit to China for technical field trips and discussions in late November, the Chinese side welcomes such a visit and will work with the New Zealand side to further discuss and determine the relevant programme arrangements.

With best regards,

Wang Yiyu
(Signature)

Division Director
Plant Quarantine Division
Department for Supervision on Animal and Plant Quarantine
AQSIQ
People's Republic of China

10 September 2009

Cc: Mr Steven Ainsworth, Agriculture Counsellor,
New Zealand Embassy in Beijing

Annexes:

1. List of Quarantine Pests to be removed on China's Suggestion (Pears)

No.	Pest	Reason for Removal
1	<i>A. ventricosa</i> <i>A. yaliinficiens</i> (new species of pear black spot bacteria)	Firstly, this bacterium was intercepted by an American named Robert on Hebei Ya pears exported to the US. No report has been found about its occurrence on sand pears (<i>Pyrus pyrifolia</i>). Secondly, there are significant differences between China's research result and the conclusion of the US. The Chinese side believes that the bacterium intercepted by the US is <i>A. alternaria</i> , which commonly occurs around the world. China's research result has been published in the "Plant Quarantine". This should not be taken as a pest on sand pears (<i>Pyrus pyrifolia</i>) before an agreement is reached between experts of the two sides. Thirdly, countries such as Canada, Australia and others do not list it as a quarantine pest.
2	<i>Gymnosporangium fuscum</i>	The bacterium is one of the entry quarantine pests newly proclaimed by China in 2007. It is distributed only in Shanxi Province of China, and is currently under official control. The bacterium mainly causes harm to leaves, and occasionally to young fruit. It causes fruit deformity and early falling off when serious infection occurs. The possibility of it infecting mature fruit is very low. Infected fruit can be easily removed during harvest and processing.
3	<i>Phomopsis fukushii</i>	The bacterium seldom occurs in China, and it mainly causes damages to tree trunk. It cannot spread with fruit.
4	<i>Chrysomphalus dictyospermi</i>	Pears is the secondary host of this pest, and there has been no report on it causing damages on pears. In addition, years of field investigation and research show no sign of its presence.
5	<i>Lepidosaphes conchiformes</i>	It does not occur in China.
6	<i>Lepidosaphes pyrorum</i>	It seldom occurs in China. Years of orchard field investigation and research show no sign of it either.
7	<i>Lopholeucaspis japonica</i>	It occurs in China, but does not cause harm to pears. Years of orchard field investigation and research show no sign of it either.
8	<i>Parlatoria proteus</i>	It does not occur on pears in China.
9	<i>Dolycoris baccarum</i>	It occurs only in Henan Province, but pears is not its host. Years of orchard field investigation and research show no sign of it either.
10	<i>Harmonia axyridis</i>	It occurs in China, but it is a predatory kind.
11	<i>Planococcus kraunhiae</i>	No report has been found on the presence of this

		insect in mainland China. New Zealand points out in the Risk Analysis Report that the insect is widely distributed in mainland China, and lists a literature reference Williams (2004). But that particular article cannot be found in the reference literature. Please provide detailed information or further verify the scope of distribution of this insect in China.
12	<i>Pempelia heringii</i>	No report has been found about its occurrence in China.
13	<i>Pseudococcus maritimus</i>	There is no report about the occurrence of this insect in China in CPC (2007). China's existing documents show that this insect is distributed only in Guangxi and Xinjiang of China, with no report about its occurrence in other areas. In addition, years of pear orchard field investigation and research show no sign of this insect.
14	<i>Kleemannia sp.</i>	It does not occur in China.
15	<i>Proctolaelaps sp.</i>	It occurs in China, but no report has been found on it causing damages to pears. Years of orchard field investigation and research show no sign of it either.
16	<i>Tarsonemus yali</i>	No report has been found about its occurrence in China.
17	<i>Tydeus sp.</i>	Beneficial insect. The possibility of it spreading with pear fruit is very low.
18	<i>Tyrophagus sp.</i>	An important mite damaging stored goods and edible fungi worldwide. In addition, New Zealand has not specified it down to the species.
19	<i>Aphanostigma iaksuiense</i>	Presently there is no report about the occurrence of this insect in China. New Zealand believes that this insect is distributed in areas including Anhui, Beijing, Hebei, Jiangsu, Liaoning, Sichuan, Shandong, Yunnan, Zhejiang, etc., and lists the literature references: Fang, 1980; Tai et al, 2004; Zhang and Zhong, 1983. But the Chinese side has not found any information about this insect in these pieces of reference literature. Please verify the detailed scope of distribution of this insect in China.

Note appendix 2 of the submission only relates to table grapes and has been omitted.