



Review of Submissions:

DRAFT IMPORT HEALTH STANDARD FOR
FRESH BANANA FOR CONSUMPTION FROM
THE PEOPLE'S REPUBLIC OF CHINA

December 2015

Ministry for Primary Industries

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REVIEW OF SUBMISSIONS ON:

DRAFT IMPORT HEALTH STANDARD FOR
FRESH BANANA FOR CONSUMPTION FROM THE PEOPLE'S REPUBLIC OF CHINA

December 2015

Approved for general release

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Contents

Page

Acronyms used in the document.....4

Introduction5

Section 1: Responses to Technical Submissions.....6

Submissions from Horticulture New Zealand6

Submissions from New Zealand Fresh Produce Importers Association17

Submission from Progressive Enterprises Ltd.27

Submissions from Foodstuffs North Island Limited.29

Submissions from Freshmax New Zealand Ltd.....31

Submissions form Dole New Zealand33

Section 2: General Topics Raised.....37

 Inspection at the Border37

 Pest identification at the border.37

 Drivers behind the ‘new approach’ to biosecurity37

 ‘Basic Measures’, ‘Targeted Measures’ and ‘MPI Specified Measures’40

 Export systems41

 Export plans42

Section 3: Description of the different measures used in import health standards44

Section 4: References.....45

Section 5: Reassessment of Strength of Measures Required for Mites and Thrips46

Appendix 1: Submissions Received.....47

Acronyms used in the document

AD	Additional declaration
ALOP	Appropriate level of protection
BORIC	Biosecurity Organisms Register for Imported Commodities
BQA	Bilateral Quarantine Arrangement
CEBRA	Centre for Excellence in Biosecurity Risk Analysis
CTO	Chief Technical Officer
DAFF	Department of Agriculture, Forestry and Fisheries
DD	Discussion document
FreshPAC	Fresh Produce Advisory Committee
GAP	Good Agricultural Practices
HortNZ	Horticulture New Zealand
IHS	Import health standard
IRA	Import risk analysis
ISPM	International standards for phytosanitary measures
MAF	Ministry of Agriculture and Forestry
MAFBNZ	Ministry of Agriculture and Forestry Biosecurity New Zealand
MPI	Ministry for Primary Industries
MPI ABTRT	Ministry for Primary Industries Approved Biosecurity Treatments Standard
NPPO	National Plant Protection Organisation
NZGAP	New Zealand Good Agricultural Practice
NZMAF	New Zealand Ministry of Agriculture and Forestry
OAP	Official Assurance Programme
PEL	Progressive Enterprises Ltd
PFA	Pest Free Area
PRA	Pest Risk Assessment
PRC	People's Republic of China
RMP	Risk Management Proposal

Introduction

1. The Ministry for Primary Industries (MPI) consulted with interested parties from 13 January 2015 to 16 February 2015 on the draft import health standard (IHS) for “Fresh Banana (*Musa* spp.) for Consumption from the People’s Republic of China” in accordance with Section 23 of the Biosecurity Act 1993 (Biosecurity Act) and MPI’s consultation policy.
2. The draft IHS was presented in MPI’s new format, and was accompanied by a Risk Management Proposal (RMP) providing information to support the proposed measures contained in the draft IHS.
3. MPI received six submissions on the draft IHS from the following stakeholders:

Submitter	Submitted by	Date received
Horticulture New Zealand	Peter Silcock	13 February 2015
New Zealand Fresh Produce Importers Association	Kevin Nalder	16 February 2015
Dole New Zealand	Steve Barton	13 February 2015
Foodstuffs New Zealand	Ronan Bowles	13 February 2015
Freshmax New Zealand Ltd	Alistair Petrie	13 February 2015
Progressive Enterprises Ltd	Amit Patel	11 February 2015

4. Copies of these submissions are available in Appendix 1.
5. This document summarises the comments/points raised through the submission process and presents MPI’s responses to these in five sections:
 - Section 1: Responses to technical issues raised by submitters.
 - Section 2: General items raised in the six submissions;
 - Section 3: Description of the different measures used in import health standards;
 - Section 4: References used in MPI’s reply to submissions; and
 - Section 5: Reassessment of strength of measures required for mites and thrips.
6. The Risk Management Proposal (RMP) requested “comment on the requirements (including measures) in the proposed new IHS”. This review of submissions (section 1) responds to those comments.
7. The RMP also included the following invitation “Submitters may also like to comment separately on other aspects of the IHS and MPI will respond to these in due course”. While not part of the formal consultation process, MPI has provided feedback on these comments within this document (section 2).
8. This review of submissions was delayed because the submissions identified questions about the assessment of some pests that required further risk assessment by MPI.

Section 1: Responses to Technical Submissions

9. In this section, the content of each of the submissions received is presented alongside MPI's response.
10. The submissions covered both technical issues as well as 'policy', and different approaches to achieve a good biosecurity outcome. This review of submissions focusses on the technical issues raised in submissions. Questions on policy and approach are generally outside this consultation process. MPI notes that the changes in approach listed in submissions have been raised with stakeholders in a number of fora prior to the release of the draft IHS. MPI is keen to further engage with stakeholders on these items. In the meantime MPI has provided some background information on the items identified as new or changed policy prior to further engagement on these items (see Section 2).
11. The items raised in submissions have been grouped so that the response is clearly identified against each of the points raised. Submissions have been presented in blue, and MPI's responses in black.

Submissions from Horticulture New Zealand

12. MPI thanks Horticulture New Zealand (HortNZ) for their submission on the draft IHS for Banana from the People's Republic of China (Banana from PRC). MPI appreciates and shares HortNZ concerns regarding biosecurity and the need to manage the likelihoods of unwanted organisms establishing in New Zealand.

HortNZ Submission:

13. The IHS does not include the additional measure required in the RMP for *Bactrocera dorsalis*; "pest risk management activities during production to control *B. dorsalis*" (paragraph 296). The RMP states that these activities will be documented in the export plan however we believe this must also be included in the IHS as it is a risk management measure. HortNZ recommends the addition to the IHS all the measures required in the RMP (paragraph 305) relating to production, harvesting and post-harvest.

MPI Response:

14. MPI has reviewed this section of the RMP and the additional measure (in-field controls) for *B. dorsalis* will be removed. This is because:
 - The IHS scope requires bananas to be commercially produced meaning that Basic Measures must be undertaken. These measures include pest management activities applied during the growing cycle. Details of the basic measures applied will be included in the export plan.
 - However hard green (immature) banana fruit are not a host for *Bactrocera dorsalis*, hence no pest management activity is required for this pest prior to harvest of hard green banana fruit.

HortNZ Submission:

15. Further to this, HortNZ would like MPI to make it clear that the export plan describes how measures are implemented rather than repeating the measures themselves.

MPI Response:

16. MPI confirms that an export plan does not include additional measures but describes how the measures in an IHS will be implemented. The export plan provides greater transparency of how measures will be implemented in the exporting country, and will be used by MPI as an audit document during pathway assurance audits. An export plan is required whenever Targeted or MPI-Specified Measures are required in the IHS.

HortNZ Submission:

17. HortNZ notes that a generic pest risk assessment (PRA) has been conducted and published for armoured scale and other coccoid insects by MPI (MPI, 2015b) and referenced in the RMP. We are concerned that as the findings of the PRA represent a major change in pest risk for a number of pests it should have been consulted on separately before inclusion in a specific IHS.

MPI Response:

18. The Biosecurity Act (section 23) describes the process to be used for the development of an IHS. The process begins with a CTO assessing or analysing risks and requires consultation on a draft IHS supported by risk assessments. Risk assessments are updated as necessary, such as when new information becomes available. These re-assessments can result in changes to the level of risk posed by an organism, and is the basis of the emerging risk system at MPI.
19. Pest risk assessments are conducted as necessary to support risk management decisions in IHSs. MPI considers it appropriate to include these assessments during the consultation process for new IHSs.

HortNZ Submission:

20. HortNZ would like to question the assessment of mealybugs from the PRA with particular reference to the RMP (paragraph 119) indicating a low likelihood of successful introduction of these insects. For example, *Maconellicoccus hirsutus* is currently considered a high impact pest in the IHS(s) for bananas from Australia and table grapes from Mexico and USA requiring pest control activities or PFA and an additional declaration (MPI, 2014).

MPI Response:

21. MPI considers the likelihood of introduction of *Maconellicoccus hirsutus* to be low because almost all the serious damage by *M. hirsutus* is in areas between 7° and 30°N (sub-tropical to tropical) and the climate in New Zealand is generally unsuitable for establishment. However, *M. hirsutus* could establish in protected crop environments but the low mobility of the pest means there is a very low likelihood of the pest finding its way into a protected crop. In addition, many of the important hosts are tropical plants that are not widely cultivated in New Zealand. The likelihood of establishment is also reduced because measures remain in place for the pest; basic measures during production, and phytosanitary inspection and certification. Consignments are inspected on arrival, and actions are taken if the pest is detected.

HortNZ Submission:

22. HortNZ disagrees with the low risk assigned to pests with limited distribution potential including protected crop environments, for example RMP paragraph 130 and the MPI 2015b document. New Zealand has a range of very high value specific regionally based plant industries, some of which are covered crops, which would be impacted by limited distribution and so risk should be assessed in that context. There are examples around the world where pests will establish in covered crops and cycle through weed species associated in the crops or close by. These pests are very difficult to control or eradicate particularly if widely distributed.

MPI Response:

23. Risk is based on a number of factors and the likelihoods and impacts are assessed across all of New Zealand. An assessment of low risk doesn't mean there is no risk or that impacts in limited areas are not significant. The "low risk" is in the context of the whole of New Zealand and is relative to a wide range of risks to plant health in New Zealand. In the case of *Maconellicoccus hirsutus*, almost all the serious damage by *M. hirsutus* is in areas between 7° and 30°N, and many of the important hosts are tropical plants that are not widely cultivated in New Zealand. Two previous MPI risk assessments (Island cabbage and China grapes) also assessed the impact of *M. hirsutus* as being low, but there were some inconsistencies in how it was considered, which is why a comprehensive review was completed as part of this process.

24. *M. hirsutus* remains a regulated pest for New Zealand, and as such pre-export measures must be applied including standard pest control activities during production, and phytosanitary inspection and certification. In addition, the detection of *M. hirsutus* on arrival in New Zealand would result in action being taken on the consignment.
25. MPI considers the 'low risk' assessment for these pests to be technically justified and supported by available science.

HortNZ Submission:

26. HortNZ notes that Stouthamer (2010) indicated that armoured scale insects may require more phytosanitary intervention than previous assessments have indicated due to their ability to disperse to hosts. Stouthamer commented that "based on the levels of live armored scales entering California on Mexican Hass avocados, we believe it is only a matter of time before an exotic species, i.e. one not yet present in California or the U.S., establishes in California". USDA has not changed their stance and allows armoured scale into the USA without fumigation. HortNZ notes that there have been many and ongoing interceptions of all life stages of armoured scale on the existing banana import pathways to New Zealand (RMP paragraph 92) but it is unknown if they would have established as 90% of the consignments were fumigated. HortNZ questions the understated potential for crawler mobility and male scales to fly and believes the MPI risk assessment should indicate a higher potential to establish in New Zealand.

MPI Response:

27. The armoured scale PRA 2015 is based on a comprehensive review of the most recent literature including the presentation by Stouthamer and Morse mentioned by HortNZ. The statement by Stouthamer and Morse regarding 'armoured scale insects may require more phytosanitary intervention than previous assessments have indicated' is a direct reference to the level of intervention that the USA has on armoured scales, which is not the same as New Zealand.
28. The US policy has been that live armoured scales are not a risk in association with fresh produce, and therefore require no phytosanitary measures nor is there treatment if detected at the border, even if there are very large numbers of live scales present (for example with Mexican avocados entering California). Morse *et al.* (in various publications e.g. J. Econ. Entomol. 102: 855–867) have disagreed with this policy and consider that Mexican avocados into California provide a pathway for the establishment of armoured scale insects. The USDA have since carried out a quantitative model and they still disagree. Phoresy¹ was one issue raised by Stouthamer and Morse (e.g. J. Econ. Entomol. 103:11172-9). However including phoretic dispersal into the USDA, the quantitative model did not change the overall outcome, even when using laboratory-derived figures for phoresy that were obtained in a highly artificial environment and are likely to have overestimated the true probability.
29. MPI has always considered live armoured scale to be a risk on fresh produce and, as such, requires Basic Measures to be applied, and actions taken on arrival if detected. The MPI armoured scale PRA has identified that the risk from these pests is lower than previously considered.

HortNZ Submission:

30. In light of the MPI 2015b pest risk assessment and the RMP, are the risk management measures going to be reassessed for these pathways?

MPI Response:

31. Yes, pest lists and measures will be reviewed when the IHSs are reviewed, and changes made accordingly.

¹ An association between species in which one transports the other.
Review of submissions on the draft IHS for Fresh Banana for Consumption from the People's Republic of China

HortNZ Submission:

32. In addition, if it is MPI policy to not inspect on-arrival, the pre export inspection has not detected the pest and the consignment is not fumigated the armoured scale may have a pathway to establish. HortNZ would like MPI to provide comment to this please.

MPI Response:

33. MPI does not have a policy to not inspect. The default situation for fresh produce is to inspect except under exceptional circumstances. Please see Section 2 on operational policy and approach in this document.

HortNZ Submission:

34. HortNZ is aware of a high level of regulated pest interceptions on many fresh banana import pathways to New Zealand. The risk assessment for armoured scale MPI 2015b states that "Diaspidids (or armoured scale insects; Hemiptera: Coccoidea: Diaspididae) are some of the most common organisms identified at the New Zealand border. Species from the related coccoid families Pseudococcidae (mealybugs) and Coccidae (soft scales) are also very commonly detected.
35. HortNZ questions how MPI can be assured that the same pests won't occur on bananas from China, and what is MPI doing to improve the level of compliance? HortNZ requests that MPI provides information on what off shore audit or assurance activities are being undertaken to reduce the high level of regulated pest interceptions on the existing banana import pathways, some of which could potentially affect a large range of crops and New Zealand's export market access.

MPI Response:

36. MPI cannot give assurance that the same pests won't occur on bananas from China. However MPI is strengthening the requirements for banana imports through the introduction of the export plans.
37. Current IHSs require a phytosanitary inspection by the exporting country NPPO of a sample of each consignment of banana fruit exported to New Zealand. The NPPO provides an assurance (on a phytosanitary certificate) that no regulated pests were detected using official inspection of a sample of the consignment. Under the existing IHSs there is no requirement for any other pre-export measure (apart from the requirement for 'hard green' stage of maturity for fruit fly risk management), hence no audits are conducted by MPI. MPI requires treatment for any regulated pest detected on arrival.

HortNZ Submission:

38. HortNZ recommends that MPI changes the IHS title to "bananas from PRC" or "banana fruit from PRC" as a more suitable descriptor as there appears to be some variation across the documents.

MPI Response:

39. No change. The title of the draft IHS "Fresh Banana for Consumption from the People's Republic of China" is consistent with common usage and with existing fresh produce standards.

HortNZ Submission:

40. As section 1.4 (4) of the draft IHS requires 48 hours' notice for all consignments prior to arrival, all IHSs require updating to this effect.

MPI Response:

41. MPI agrees that IHSs should be updated with this requirement (if confirmed) and is assessing the feasibility of this requirement. For example, it may not be applicable to air freighted consignments.

HortNZ Submission:

42. Suggest adding a link to the BORIC database (section 1.4 guidance).

Review of submissions on the draft IHS for Fresh Banana for Consumption from the People's Republic of China

MPI Response:

43. Noted. A weblink to the BORIC database has been included in section 1.3, where this database is incorporated by reference into the IHS.

HortNZ Submission:

44. Section 1.6 - suggest adding "and Transit" to the heading as there is a mix of *enroute* and transit requirements in this section.

MPI Response:

45. It is noted that this section contains guidance covering consignments that are in transit through New Zealand, which are not covered by this IHS (as per Section 27 of the Biosecurity Act, an IHS is only required for biosecurity clearance, not to import into a transitional facility, or for goods to transit through New Zealand). The guidance provided regarding in-transit consignments is appropriate under the heading "Transport requirements".

HortNZ Submission:

46. Section 1.6 and 2.2 (1) d- there is a reference to "insect proof" or "pest proof" or a mixture of both. HortNZ suggests that the document remains aligned with IPPC terminology by using "pest proof" which includes insects and spiders for example but should exclude pathogens. The term "insect" excludes mites and spiders which are regulated for this pathway.

MPI Response:

47. The ISPMs use both the terminology 'insect proof' and 'pest proof'. 'Pest proof' covers a greater range of organisms including some plant pathogens. MPI will use the term appropriate to the circumstance, for example, 'insect-proof' is appropriate for fruit flies.

HortNZ Submission:

48. Section 2.2 (1) b – states a reference to measures for fruit pathogens. Are there measures for fruit pathogens? HortNZ recommends that MPI either removes this reference or adds the specific measures to the IHS.

MPI Response:

49. There are no fruit pathogens in Part 3 of this IHS, which means that no measures are required for fruit pathogens. The wording in section 2.2(1)b) is intended to be consistent across all fresh produce standards, some of which have fruit pathogens listed in the IHS. MPI will retain the proposed wording.

HortNZ Submission:

50. HortNZ believes it would be preferable to align the terminology associated with end point treatments IHS (2.2.1 (2)) with the measures in Part 3, for example 3.2.1 (3). Does 3.2.1 (3) constitute an end point treatment which requires an endorsement to the phytosanitary certificate?
"Banana must be treated with an agreed treatment shown to be efficacious against this pest and recorded in the export plan."

MPI Response:

51. The treatment in section 3.2.1(3) would not necessarily be an end point treatment and the IHS section 2.2.1(2) has been updated. The IHS requires the application of a measure that is efficacious against the pest and this may occur in-field. Where an end-point treatment is applied the details of this treatment will need to be included in the "Disinfestation and/or Disinfection Treatment" area of the phytosanitary certificate. However please note paragraph 73.

HortNZ Submission:

52. Suggest removing the reference to “winter window” option in the IHS (2.2.1 (3)) as this was not considered nor requested by China as outlined in the RMP.

MPI Response:

53. Agreed. This option will be removed.

HortNZ Submission:

54. HortNZ would like clarification on whether the pest terminology used in the IHS will be standardised as either “quarantine pest” or “regulated pest”? There is a mixture of the two terms which makes it confusing for readers. IHS Part 3 title states quarantine whereas Part 3.1 states regulated. HortNZ recommends that MPI amends the phytosanitary statements in 2.2.1 (1) i) and ii) to align the terminology to either regulated or quarantine pest. Also add regulated to specified pests in 2.2.1 (1) iii). In the RMP (paragraph 39), it is stated that New Zealand does not use the term regulated non-quarantine pest so suggest removal of this from the statement. In IPPC this is only referenced for plants for planting.

MPI Response:

55. MPI agrees there is confusion in the terminology driven in part by differences in definitions between the IPPC and the Biosecurity Act. The declaration in section 2.2.1(1) is consistent with ISPM 12: *Phytosanitary certificates*, which uses “quarantine pest” whereas MPI has historically used the term ‘regulated pest’. The IPPC defines ‘regulated pest’ as “A quarantine pest or a regulated non-quarantine pest”, however MPI does not use the ‘regulated non-quarantine’ pest category.
56. MPI will continue to use the term ‘Regulated Pest’ defined to include ‘Quarantine Pests’ as defined by IPPC, and ‘unwanted organisms’ as defined by the Biosecurity Act.

HortNZ Submission:

57. HortNZ suggests removing or rewriting the guidance under 2.2.1 of the IHS. This is confusing and does not add value to the IHS.

MPI Response:

58. The guidance in section 2.2.1 of the IHS provides direction to readers unfamiliar with the documents structure.

HortNZ Submission:

59. Recommend correcting the spelling of *Bactrocera dorsalis* in the IHS Part 3.3.

MPI Response:

60. MPI has amended section 3.3.1(1) with the correct spelling of *Bactrocera dorsalis*.

HortNZ Submission:

61. If a commodity is recognised as a non-host or non-host based on maturity then the option for PFA should not be included unless it has been proposed and accepted by the two NPPOs. PFA was not considered in the RMP for China so it should not be included in the IHS. Suggest removing IHS 3.3.1.1 and guidance.

MPI Response:

62. The IHS is intended to include all measures accepted for pests associated with this commodity. The measure PFA will be retained as it may be requested in future. Note, this option cannot be used unless the details of how it will be implemented are detailed in the export plan.

HortNZ Submission:

63. Paragraph 291 of the RMP states that MPI accepts non-host status then in paragraph 292, it states that this measure has not been requested and therefore not assessed further. HortNZ recommends removing the reference to non-host in paragraph 292.

MPI Response:

64. Non-host status is one of the measures that MPI accepts and was incorrectly included in paragraph 291 and reference to non-host in paragraphs 291 and 292 has been removed.

HortNZ Submission:

65. Should there be a soil tolerance in the draft IHS just as there currently is in IHS 152.02 (lots contaminated with soil in excess of 25g per 600 units sampled shall be washed free of soil prior to release or reshipped or destroyed at the importers option)? Soil is also “regulated” in the MPI export standard for phytosanitary inspection.

MPI Response:

66. Soil can present a number of biosecurity risks. As per the IHS for Soil, Rock, Gravel, Sand, Clay, Peat, and Water (<http://www.biosecurity.govt.nz/files/ihs/bmg-std-sowtr.pdf>), soil that is a contaminant on a consignment must be treated. Therefore there is no tolerance for soil as a contaminant on fresh produce under this IHS. A comment on soil has been added to the commodity description part of the IHS.

HortNZ Submission:

67. HortNZ would like MPI to clarify whether any offshore treatments applied for regulated pests detected at pre-export inspection will be approved by New Zealand and included in the MPI Approved Treatments Standard (MPI ABTRT, 2015), RMP (paragraph 204)? Is the option for China to treat pre-export detailed in the export plan?

MPI Response:

68. No new treatments have been added to the MPI Approved Biosecurity Treatments standard as a result of the proposal for Bananas from China. MPI requires that all fresh produce exported to New Zealand is subject to Basic Measures included as a normal part of commercial production unless specifically excluded in the scope. In addition, all fresh produce must be inspected using official procedures, and certified as being free from pests regulated by New Zealand. In some cases an exporting country may apply a treatment to remove a pest from a consignment prior to certification, however details of the treatment are not required by MPI. Where Targeted Measures include a treatment, or MPI-Specified Measures are required then MPI would require treatment details included in the ‘treatments’ section of the phytosanitary certificate.

HortNZ Submission:

69. HortNZ is concerned that there is no explanation nor visibility of the “pest control activities” required for some pests included in the IHS. Pest control activities are required for a number of pests so this needs to be visible in the RMP in the first instance. As it is a measure, options should be indicated in the IHS and the export plan.

MPI Response:

70. The purpose of the RMP is to support consultation on the measures contained in a draft IHS. The scope of the standard requires the fruit to be “commercially produced” using Basic Measures. This would require pest control activities are undertaken in-field and (if necessary) post-harvest. Knowledge of these activities is not a requirement for access to New Zealand for any current IHS, rather the requirement is that the consignment is inspected using official procedures, and certified as being free of pests regulated by New Zealand.
71. The new approach (requiring export plans) is a significant improvement in the level of risk management for pests of concern to New Zealand.

72. MPI notes that New Zealand operates in this manner for our exports. For most of our export products, the New Zealand industry is responsible for managing pests during production; the requirement is that the product is free from regulated pests during inspection and certification.
73. For the Targeted Measures, MPI agrees that the options should be listed in the IHS regarding the type of measures considered, for example, application of a suitable pesticide. The details of the pesticide active ingredient, concentration, spray cycles etc. will be captured in the export plan. Listing these details in the IHS is not practical because the information changes often. For example, the pesticide being used can change quickly if pesticide resistance develops or when an improved chemical becomes available. MPI would want the exporting country to use the best available option (as agreed by MPI and documented in the export plan) to manage pests.

HortNZ Submission:

74. HortNZ is concerned that MPI appears to have departed from the import risk analysis (IRA) process (MPI, 2006) where the assessment of risk is based on pests associated with the commodity on a specific pathway. We understand there is no IRA for bananas from China, or specific IRA's for existing banana pathways, and HortNZ is concerned that MPI is utilising assessments of different commodities and country pathways to substantiate a risk management option for the bananas from China IHS. As an example, the risk of entry of a pest on grapes or citrus may be very different from the risk posed by a hand of bananas (considering the level of hiding places a pest has in this commodity). We believe this methodology poses a risk of under estimating the potential for entry.

MPI Response:

75. The process for developing and consulting on IHSs is laid out in section 23 of the Biosecurity Act. The process requires a CTO to begin the process of developing an IHS by "analysing or assessing the risks associated with importing a class or description of goods". The Biosecurity Act also requires that the CTO consults on the draft standard. The existing MAFBNZ Risk Analysis Procedures 2006 are currently undergoing review to bring them up to date with current process to better align with International Standards and practise, and to incorporate the internal and external feedback we have received over recent years.
76. The risks described here are the organisms that may be associated with the goods. MPI therefore uses existing risk assessments where these organisms have been considered with the following caveats:
- a. MPI agrees that using risk assessments from different pathways does not provide information about the overall risk from pests on banana fruit from China, in particular the likelihood of entry and exposure. However, existing risk assessments provide information on some of the components of risk. For example, the risk assessment for citrus from Samoa provides information on the potential establishment and spread of whitefly in New Zealand and the impact of establishment should the pest arrive here. These assessments are the same for the same pest irrespective of the commodity or pathway. This information is often sufficient for MPI to require additional measures over and above basic measures when the pest is known to be associated with the commodity.
 - b. While risk assessments for other countries or commodities do not provide information on the likelihood of entry and exposure on the commodity in question, it may under-estimate the risk of entry and exposure on the pathway. However in the absence of an assessment of likelihood of entry and exposure for the commodity in question an assumption is made by MPI that the pest will be present on the pathway. In this case the risk is more likely to be over-estimated. If information becomes available that indicates the likelihood of entry and exposure are negligible, MPI will review the measures in the IHS.

- c. The PRA process uses qualitative assessment to determine the risk posed by an organism including the likelihood of entry, establishment, exposure, spread and impact of a pest on a pathway. Because of the uncertainties associated with the assessment it is difficult to gain definitive information about the overall risk. The risk is therefore defined in comparative terms such as high, medium or low. For many pests the classification between 'low' and 'medium' is based on expert judgement and experience.

HortNZ Submission:

77. HortNZ would like MPI to further clarify the difference between targeted and specified measures. This is new terminology described in the RMP (paragraph 66 and 74) and outlined at the 25 November 2014 FreshPac meeting. The terms are similar and do not align with IPPC terminology and there is overlap with measures common to both categories such as testing, approved systems approach, and non-host status and pest free area which is confusing.
78. The criteria for categorising the pests requiring targeted measures is unclear, as stated in RMP paragraph 66 "Where regulated pests are assessed by New Zealand as presenting a higher likelihood of establishment and spread, or a higher impact, MPI requires measures to be applied that target those pests". How is this higher likelihood of establishment and spread, or a higher impact, assessed as there is no scale for these descriptors? HortNZ recommends that there be no descriptive terminology for measures and that they relate to the risk for that organism from that particular country. There is an increasing over use of terminology, for example you could end up with "specified quarantine pests with prescribed specified measures in the specified regulated pest list". Simply, and aligned with IPPC, regulated pests or quarantine pests listed in the bananas from China IHS are a subset of all New Zealand's regulated pests (BORIC 2015) and are those which require measures with the justification outlined in a risk analysis or pest risk assessment.
79. HortNZ notes that RMP paragraph 66 states that "the pests requiring targeted measures are listed in Part 3 of the IHS", however, the pests requiring specific measures are also listed in Part 3 of the IHS.
80. Further to the point above, HortNZ would like to MPI to clarify the difference between significant, high impact and high risk regulated pests as outlined in the IHS (and RMP (paragraphs, 21, 31,53, 74) and how they are categorised for each commodity. HortNZ would also like to clarify if the terminology RG1, RG2 and RG3 used in MPI IHS 152.02 (MPI, 2014) is now redundant.

MPI Response:

81. The risk posed by a pest is assessed by MPI using a qualitative methodology. Likelihood and impact descriptors (e.g. low, medium, high) are outlined in the MAFBNZ Risk Analysis Procedures 2006. A "higher likelihood" or "higher impact" is based on a wide range of biotic and abiotic factors and is relative to other organisms assessed in an IRA, and if it has been previously assessed on the same or different commodities then this is also taken into consideration.
82. MPI acknowledges this is a very challenging area and there is ongoing work to increase the transparency of our qualitative judgements. MPI has identified this for further collaboration with the Centre for Excellence in Biosecurity Risk Analysis (CEBRA).
83. The terms used to describe pest risk above are comparative terms used to identify an appropriate strength of measure to manage the pest and is further explained in Section 2 of this document. MPI is developing a framework for determining strength of measures and will discuss this with stakeholders at a later stage to provide greater transparency.

HortNZ Submission:

84. Previous RMPs have described the export procedures based on a pathway assessment. HortNZ would like MPI to confirm whether there has been a pathway assessment conducted to assess whether China has an export system for bananas in place that meets New Zealand's expectations. Could MPI please also explain why there is no description of the export system included in the RMP? HortNZ is concerned that the export system, including pest control activities for this commodity from China, is not described in the RMP. This may create a risk that trade will commence before an export system is approved. Can MPI describe how this will be managed? As stated in the RMP (paragraph 57), "a pathway assessment visit will be conducted for new commodity/country combinations". And (paragraph 16) "If the commodity has associated pests that require targeted or specified measures to be applied, an export plan based on an MPI pathway assessment visit and identifying how those measures will be applied will be negotiated with MPI".

MPI Response:

85. MPI has not yet conducted a pathway assessment for bananas from China. However a pathway assessment is a necessary pre-requisite (given that MPI-specified measures are required for pests) before an export plan can be negotiated with China.
86. The IHS requires (section 1.5 (2)) that an export plan must be negotiated before trade can begin. MPI will establish a register on the MPI website that lists countries and the commodities that can be exported to New Zealand. Commodities will only be listed for each country where an export plan (where required) has been negotiated. Existing trade will be recognised during the transition to the new IHS formats. The website will be publicly available.

HortNZ Submission:

87. Within Part 1 of the RMP (paragraph 58) there is reference to New Zealand imposing a consistent measure to what importing countries impose on New Zealand for a similar pest. This reciprocal view may be problematic when there is a similar pest but the exporting country does not have good oversight of the export system or has less capability or capacity in pest control. A higher level of phytosanitary intervention may be required in this instance. Risk should be assessed according to the pest risk and any risks associated with the export system of the exporting country and be aligned to New Zealand's ALOP not the exporting countries ALOP.

MPI Response:

88. MPI agrees that measures must be appropriate to New Zealand's ALOP. The comment in the RMP reflects the position outlined in "Balance in Trade" that given equivalent circumstances (such as pest risk and ALOP), New Zealand should not require more stringent measures than it is willing to accept for products exported from New Zealand. The level of verification applied at the border and the priority given to pathway assurance audits may be adjusted according to the level of confidence we have in the exporting country system and the level of compliance on previous consignments etc.

HortNZ Submission:

89. HortNZ would like to clarify that given that there are now measures proposed for bananas from China and an export plan, are other banana pathways subject to review? Additionally, how does this fit with the plan to roll out "all countries" IHS such as Zucchini from Tonga?

MPI Response:

90. IHSs will be reviewed as they are converted into the new IHS format and priority will be given to pathways where MPI is concerned about the effectiveness of the current phytosanitary measures, or where there are high levels of non-compliant consignments arriving. As "all country" IHSs are developed, MPI will review these pathways and update existing BQA and OAPs to export plans in order to improve consistency and deliver better phytosanitary outcomes through the export plan and IHS.

91. MPI is concerned at the high level of non-compliance on current banana fruit imports and has established a working group under FreshPAC to consider appropriate measures that can be applied to manage pests associated with the existing trade.

Submissions from New Zealand Fresh Produce Importers Association

92. MPI thanks the New Zealand Fresh Produce Importers Association (NZFPIA) for their submission on the draft IHS for Banana from China.

NZFPIA Submission:

93. The pest risk assessment, and associated “Targeted Measures” categorisation, for *Thrips hawaiiensis* are inconsistent with the measures specified in several other IHSs that have a similar risk profile as China bananas. For example, the measures for *Thrips hawaiiensis* range from “Targeted Measures” with the possibility of reshipment or destruction of offending consignments through to a non-regulatory status with no measures and no on-arrival contingency actions (i.e. unconditional release of consignments).

MPI Response:

94. MPI agrees that inconsistencies exist between current IHSs and is working to remove these. The new IHS format (commodity standards) will remove the inconsistencies and reduce the likelihood of future inconsistencies. In the interim, updating standards will inevitably lead to some inconsistencies until all the standards have been reviewed and updated. With regard to the specific example, *Thrips hawaiiensis* is regulated in BORIC. All thrips are required by MPI to be identified on interception to determine remedial actions and regulated status in BORIC. This is because many thrips families include *notifiable* or *high impact* or *otherwise economically significant* species.
95. The regulatory status of *Thrips hawaiiensis* is an example of the inconsistencies that arise using the existing format for IHSs. *Thrips hawaiiensis* is listed as non-regulated in the IHS “Pineapple, *Ananas comosus* from Thailand”, but is listed as regulated in BORIC. The assessment review for *Thrips hawaiiensis* conducted as part of this Review of Submission confirms the regulatory status for *Thrips hawaiiensis* as a regulated pest for New Zealand. The IHS for pineapple from Thailand will be amended to reflect this decision.
96. *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis* are listed as pests on a number of pathways (commodities and countries). In developing the draft IHS, MPI considered whether additional measures were justified because of the potential impact from these pests, and included Targeted Measures in the draft IHS. However following submissions on these pests, MPI has reassessed the risks posed by *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis*. A summary of this reassessment is in Section 5. The reassessment has identified that the risk from these pests was over-estimated in the RMP. The measures required for these pests has therefore been identified as requiring Basic Measures rather than Targeted Measures, that is reverting to the current level of management for these pests.

NZFPIA Submission

97. The pest risk assessment and measures for the mite, *Eutetranychus orientalis* are inconsistent with the measures (mandatory phytosanitary inspection and certification) specified in other existing IHSs (e.g. Bananas from Australia).

MPI Response:

98. MPI will be reviewing all IHSs for consistency and appropriateness of measures for pest risk associated with fresh commodities as part of the Requirements and Guidance Programme, which should remove inconsistencies and reduce the likelihood for future inconsistencies. Mites are a persistent issue on imported bananas and it is expected that additional measures may be required for other pathways as MPI’s review progresses. MPI has some concerns about the extent of interceptions of mites on banana

pathways, and has established a focus group (under FreshPAC) to determine if the existing IHS measures are sufficient to manage the phytosanitary risk presented by mites on these pathways.

99. *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis* are listed as pests on a number of pathways (commodities and countries). In developing the draft IHS, MPI considered whether additional measures were justified because of the potential impact from these pests, and included Targeted Measures in the draft IHS. However following submissions on these pests, MPI has reassessed the risks posed by *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis*. A summary of this reassessment is in Section 5. The reassessment has identified that the risk from these pests was over-estimated in the RMP. The measures required for these pests has therefore been identified as requiring Basic Measures rather than Targeted Measures, that is reverting to the current level of management for these pests.

NZFPIA Submission

100. The fungus, *Ceratocystis paradoxa* is listed in Appendix 2 as a specified regulated pest for bananas from the People's Republic of China. In BORIC and the IHS for bananas from Australia, it remains categorised as non-regulated.

MPI Response:

101. While *Ceratocystis paradoxa* is listed as non-regulated in BORIC it is not clear that *C. paradoxa* is present in New Zealand. Although this name has been used in New Zealand, NZFUNGI (2015) states that its presence is uncertain and that records need reconsidering based on the genetically more restricted concept of *C. paradoxa* presented in a recent paper by Mbenoum, M.; de Beer, Z.W.; Wingfield, M.J.; Wingfield, B.D.; Roux, J. 2014: Reconsidering species boundaries in the *Ceratocystis paradoxa* complex, including a new species from oil palm and cacao in Cameroon. Mycologia 106(4): 757-784.
102. The status of *Ceratocystis paradoxa* will need to be reviewed before a final determination of the regulatory status is made.

NZFPIA Submission

103. The pink hibiscus mealybug, *Maconellicoccus hirsutus*, is listed in Appendix 2 as a specified regulated pest for bananas from the People's Republic of China. In the IHS for bananas from Australia, it is categorised as a "high impact" regulated pest and requires stronger measures (appropriate pest control activities or pest free areas) than other regulated pests.

MPI Response:

104. MPI considers the likelihood of introduction of *Maconellicoccus hirsutus* to be low because almost all the serious damage by *M. hirsutus* is in areas between 7° and 30°N (sub-tropical to tropical) and the climate in New Zealand is generally unsuitable for establishment. However, *M. hirsutus* could establish in protected crop environments but the low mobility of the pest means there is a very low likelihood of the pest finding its way into a protected crop. In addition, many of the important hosts are tropical plants that are not widely cultivated in New Zealand. The likelihood of establishment is also reduced because measures remain in place for the pest; standard pest control activities during production, and phytosanitary inspection and certification. Consignments are inspected on arrival, and actions are taken if the pest is detected.
105. The status of *M. hirsutus* will be reviewed in IHSs as part of the Requirements and Guidance program, and in BORIC.

NZFPIA Submission

106. Some regulated pests listed in BORIC such as *Icerya aegyptiaca* (Homoptera: Margarodidae) and *Rastrococcus invadens* (Homoptera: Pseudococcidae) and reported from bananas in the People's

Review of submissions on the draft IHS for Fresh Banana for Consumption from the People's Republic of China

Republic of China (CABI Crop Protection Compendium) do not appear to have been considered for inclusion in Appendix 2.

MPI Response:

107. MPI's assessment of the risk posed by mealybugs and scales is that successful introduction of these insects will be limited by the exposure step given their limited mobility (see point 119 in the RMP). Pre-export phytosanitary inspection and certification are appropriate actions if either *Icerya aegyptiaca* or *Rastrococcus invadens* are detected in a consignment, and also apply to all other regulated species in BORIC that have not been specifically considered in the IHS/RMP (as per section 1.4(5) of the draft IHS).
108. Linking pest lists to an IHS in the appendix is an interim measure until a full searchable database has been developed. The practice of providing pest lists in IHSs has resulted in a number of inconsistencies when the status of a pest changes (for example, those discussed in paragraphs 101 and 104) from regulated to non-regulated) or when new pests are identified through the emerging risk system. In future, all pest information will be held in a single database linked to IHSs, and hence updates can be made in a single place.

NZFPIA Submission

109. *Chrysophalus dictyospermi* is listed in Appendix 2 as a specified regulated pest for bananas from the People's Republic of China while it is listed as a "high risk pest" requiring agreed pest control activities in the IHS for *Pyrus bretschneideri*, *Pyrus sp. nr. communis* and *Pyrus pyrifolia* from the People's Republic of China.

MPI Response:

110. As per points 97-98 of the RMP, MPI has determined that the specialised biology of diaspidids means that the likelihood of successful introduction of these insects will be limited by the exposure step given their limited mobility. Measures for *Chrysophalus dictyospermi* in other IHSs will be reviewed as part of MPI's Requirements and Guidance Programme. The removal or addition of measures in IHSs, other than for emergency purposes, will be subject to public consultation.

NZFPIA Submission

111. The "sprayed with approved insecticide [or miticide]" requirements specified under S3.2.1, 3.2.2 and 3.2.3 of the draft IHS appear to conflict with paragraphs 55 and 56 of the RMP document.

MPI Response:

112. *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis* are listed as pests on a number of pathways (commodities and countries). In developing the draft IHS, MPI considered whether additional measures were justified because of the potential impact from these pests, and included Targeted Measures in the draft IHS. However following submissions on these pests, MPI has reassessed the risks posed by *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis*. A summary of this reassessment is in Section 5. The reassessment has identified that the risk from these pests was over-estimated in the RMP. The measures required for these pests has therefore been identified as requiring Basic Measures rather than Targeted Measures, that is reverting to the current level of management for these pests.

NZFPIA Submission

113. Section 1.4 (5) of the IHS is near impossible to meet and is not consistent with a "Maximum Allowable Prevalence (MAP) approach referred to in MPI Standard 152:02: Clearance of Fresh Produce (definitions). A consignment freedom requirement is effectively a zero risk policy.

MPI Response:

Review of submissions on the draft IHS for Fresh Banana for Consumption from the People's Republic of China

114. Referring to points 18 thru 21 in the RMP, the objective of an IHS is to reduce the presence of regulated pests in a consignment to an acceptable level (which while very close to, is not equal to zero). The statement in 1.4 (5) that “all fresh produce consignments must be free from viable regulated pests” refers to the presence of zero regulated pests in a 600 unit sample (or zero RG3 and RG2 in any sample).
115. MPI is advised by inspection staff that the higher sampling options are rarely if ever used and are therefore likely to be removed when a clearance standard is developed through the Requirements and Guidance Programme.

NZFPIA Submission

116. Given that mites are not insects, it is assumed that any targeted measures specified in S3.2.2(2) and 3.3.3(2) for the mites (if justified in the first place), *Tetranychus piercei* and *Eutetranychus orientalis*, should include approved miticides rather than insecticides.

MPI Response:

117. Agreed. References to “insecticides” and “miticides” will be replaced with “pesticides” to ensure consistency throughout the standard.
118. *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis* are listed as pests on a number of pathways (commodities and countries). In developing the draft IHS, MPI considered whether additional measures were justified because of the potential impact from these pests, and included Targeted Measures in the draft IHS. However following submissions on these pests, MPI has reassessed the risks posed by *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis*. A summary of this reassessment is in Section 5. The reassessment has identified that the risk from these pests was over-estimated in the RMP. The measures required for these pests has therefore been identified as requiring Basic Measures rather than Targeted Measures, that is reverting to the current level of management for these pests.

NZFPIA Submission

119. The requirement under S2.2(1)(d) for packaging to be “insect proof” is not technically justified nor is it consistent with other IHSs and associated measures.

MPI Response:

120. MPI considers insect or pest-proofing (a product security measure) justified for commodities which are hosts to significant high risk pests and where re-infestation of a consignment (with target or hitchhiker species) could occur post-phytosanitary inspection in the country of export, or during transit. MPI expects product security to be applied after pre-export treatments on many current commodity pathways. However, where bananas are harvested, packed and shipped in a mature green stage they are considered a non-host for fruit flies and therefore pest proof packaging is not justified. MPI will amend the product security requirements for the “non-host” option for fruit flies.

NZFPIA Submission

121. Section 2.2.1(1)(i) The additional declaration refers to “... free from quarantine pests specified by New Zealand”. However, Appendix 2 lists “Specified Regulated Pests”. This is a subtle but important terminology difference. For example, *Latrodectus elegans* is not a “pest” or “quarantine pest” by definition (IPPC Glossary of Terms).

MPI Response:

122. MPI agrees there is confusion in the terminology driven in part by differences in definitions between the IPPC and the Biosecurity Act. The declaration in section 2.2.1(1) is consistent with ISPM 12: *Phytosanitary certificates*, which uses “quarantine pest” whereas MPI has typically used the term

'regulated pest'. The IPPC defines 'regulated pest' as "A quarantine pest or a regulated non-quarantine pest", however MPI does not use the 'regulated non-quarantine' pest category.

123. MPI agrees that *Latrodectus elegans* is not a quarantine pest as per the IPPC definition. The IPPC refers to 'quarantine pests' and 'regulated pests' (defined as 'quarantine pests' and -regulated non-quarantine pests') in reference to plant health and neither definition is applicable to *L. elegans*. *Latrodectus* spp. are listed as 'regulated' in BORIC. Under the Biosecurity Act *L. elegans* is classed as an unwanted organism.
124. MPI will continue to use the term 'Regulated Pest' defined to include 'Quarantine Pests' as defined by IPPC, and 'unwanted organisms' as defined by the Biosecurity Act.

NZFPIA Submission

125. Section 1.4 Guidance: where are the "official procedures" that guide the decision to inspect (or not) the consignment and what sampling, inspection and decision-making specifically apply to China bananas? Should these be referenced in S1.3?

MPI Response:

126. Procedures for inspecting imported consignments are listed in MPI's Border Clearance procedures. However, there is no 'procedure' for determining whether a consignment is inspected or not, rather this is a policy decision made on a case-by-case basis. Consignments of fresh produce are always inspected unless the pathway is excluded from 100% inspection because of a very high compliance rate. However, some level inspections always occurs. The default situation for fresh produce is to inspect except under exceptional circumstances. Please see the section on operational policy and approach in this review (Section 2).

NZFPIA Submission

127. The NZ FPIA believes that there are significant gaps in the "fast track" hazard identification and pest risk assessment processes undertaken in the development of the (draft) IHS for bananas from China. As a result of this, there are also a number of inconsistencies with several pest categorisations, pests missing from the hazard identification process and regulated pests that have significantly different measures when compared to pathways of similar risk which have existing import health standards. In at least one case, a designated pest has no measures and no on-arrival contingency actions (i.e. non-regulated pest that would result in consignment release) on one pathway and yet attracts "Targeted Pest" status, with very stringent pre-export measures and on-arrival contingencies for interception (e.g. possible reshipment or destruction of the consignment and possible trade suspension).

MPI Response:

128. MPI does not consider that the development process for the IHS has been 'fast tracked'. Resources applied in assessing organisms on bananas from China included technical information from China (eg: pest information); existing PRAs and datasheets; historical IHS's and existing trade information; interception data; and IRAs from other countries (eg: Australia- DAFF 2002- for importing bananas from the Philippines)
129. There are PRAs on mites in the genus *Tetranychus* and a PRA for *Eutetranychus orientalis*. Measures are in place for *T. mcdanieli* and *T. pacificus* on stonefruit from the USA; *T. kanzawai* on grapes from China and on *T. neocaledonicus* on Citrus from Samoa. There are PRAs for *Thrips hawaiiensis* and measures in place for it on Samoa Citrus and Taiwan *Phalaenopsis*. The PRA for *E. orientalis* on cutflowers from South Africa indicates measures would be considered for this pathway also (the IRA is not yet published).

130. *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis* are listed as pests on a number of pathways (commodities and countries). In developing the draft IHS, MPI considered whether additional measures were justified because of the potential impact from these pests, and included Targeted Measures in the draft IHS. However following submissions on these pests, MPI has reassessed the risks posed by *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis*. A summary of this reassessment is in Section 5. The reassessment has identified that the risk from these pests was over-estimated in the RMP. The measures required for these pests has therefore been identified as requiring Basic Measures rather than Targeted Measures, that is reverting to the current level of management for these pests.

NZFPIA Submission

131. It is noted that no external review has been undertaken like the one undertaken on the Import Risk Assessment for Onions from China to New Zealand has been undertaken.

MPI Response:

132. Part of the Import Risk Assessment (IRA) process involves peer-review by individuals recognised as having the necessary expertise in the field. In the case of this draft IHS and supporting RMP, pest assessments have been drawn from many existing pest risk assessments (each of which has been externally reviewed). A draft IHS and its supporting RMP would normally be peer reviewed internally, but not externally, prior to a public consultation process.

NZFPIA Submission

133. The significant technical issues, and possible trade policy issues, associated with the points raised in this and other submissions also bring into question the robustness of the MPI peer review process (viz. internal review and external review) for “fast-track” risk assessments and (draft) IHS developments. The fast-track process used for Indian mangoes is a recent example where several pests known to be associated with mangoes in India were missed from the hazard identification, risk assessment and risk management proposals. The subsequently issued IHS was (and still is) silent on these pests, however, the measures that were subsequently imposed were significant, not consulted on, not externally reviewed and are only known to a few parties.

MPI Response:

134. The IHS for mangoes from India was not the subject of a ‘fast-track’ process. The IHS was publically consulted from 28 March 2011 to 6 May 2011 (over five weeks). No responses were received from stakeholders regarding the omission of specific pests or measures during or post-consultation.
135. MPI has engaged with stakeholders on the changes in IHS format and the improvements in the biosecurity systems (eg export plans) through advisory group (FreshPAC) meetings and other fora. MPI is keen to engage further on these issues, and has provided a summary of information in Section 2 of this document.

NZFPIA Submission

136. It is not in the best interest of MPI, exporting countries or affected stakeholders to be in this position again. It is also noted that the China onions hazard identification, risk assessment, development of risk management options and associated production of supporting documents is very different to that being used for China banana which could be considered of similar scope in terms of their biosecurity risk profiles.

MPI Response:

137. The process being used for onions from PRC IHS is not the usual policy and process and does not set a precedent for future IHS development processes. Like all policies/procedures, the policy and procedure for the development of an IHS acts as a guide only, and may be varied to suit the specific circumstances of any development process. This is consistent with best practice for administrative decisions.

Paragraph 27 of 'The Judge over your Shoulder' states "A decision-maker is entitled to adopt a general policy as a guide to exercising a discretion, but is not generally permitted to apply that policy so rigidly as to exclude the merits of an individual case. Therefore, although manuals and other departmental guidelines are important in ensuring some consistency of decision-making, departmental policies should not fetter any discretion the Act confers".

NZFPIA Submission

138. Following this short consultation process, it is noted that the only protection available to industry is contained in section 24 (1) of the Biosecurity Act. It is our belief that MPI's haste to develop and possibly recommend the current draft IHS to the Director-General denies the NZ FPIA, its members and other stakeholders the opportunity to provide detailed scientific evidence about the risk factors and the nature of the organisms that the goods may carry. In addition, it is questionable whether NZ FPIA members and other stakeholders can be confident that New Zealand's obligations under the SPS agreement are being met if the proposed IHS is issued.

MPI Response:

139. MPI does not consider the consultation period for Banana from China to be 'short'. The normal period of consultation for IHSs where the commodity is not grown in New Zealand (eg tropical fruits) is 30 days. This has been the case for the previous 10 (or more) IHSs including mango from Vietnam, Island Cabbage (Pacific Islands), dragonfruit, and mangosteen from Indonesia.
140. However, for some commodities especially where there is a significant domestic industry the consultation period is extended to 6 weeks. In these cases a FreshPAC working group is normally established.
141. During the formal consultation period, MPI provided NZFPIA additional time to present technical information in support of its submissions regarding the measures contained in the draft IHS, and this is acknowledged in your submission.
142. MPI provided further opportunity to present additional technical information however NZFPIA indicated it did not want to proceed (Letter received from NZFPIA dated 21 May 2015).
143. MPI believes the consultation process used for this draft IHS is appropriate and has not been conducted in 'haste'. Work on this IHS has been included in the MPI work plans since at least 2010.
- a. The fresh produce team's current work programme (March 2014) lists Musa spp. from China as being worked on (<http://www.mpi.govt.nz/document-vault/2029>).
 - b. Bananas from China is listed on all versions of this document going back to August 2012 (origin of document in FCS).
 - c. This workplan is the basis of discussion with the Fresh Produce Advisory Committee (FreshPAC) of which NZFPIA is a core member. The 25 Nov 2014 meeting discussed the development of an IHS for Bananas from China.
 - d. The work programme presented at the 7th October 2013 FreshPAC meeting stated that a draft IHS had been provided to China, and consultation could be expected by the end of 2013.
 - e. Bananas from China also mentioned in relation to the work programme in the 10 June 2013 FreshPAC meeting.
 - f. Bananas from China on the work programme presented at the 12 Sept 2012 FreshPAC meeting.
 - g. Bananas from China on the work programme presented at the 27 Feb 2012 FreshPAC meeting.

- h. Bananas from China on the work programme presented at the 12 Nov 2010 (inaugural) FreshPAC meeting.
- i. Bananas from China has also been specifically mentioned in the Import & Exports Group newsletters that have gone out to all stakeholders, indicating a likely consultation in December 2014.

144. However the 'targeted measures' have not been specifically discussed although the need for improved measures on the pathway has been the subject of discussion for many years (as below). The point of this consultation is to seek feedback on these measures.

NZFPIA Submission

145. Full justification for the proposed risk mitigating measures has not been provided and no evaluation of the feasibility of implementing them and whether or not they are the least trade restrictive measures available when compared to pathways of similar risk is evident.

MPI Response:

146. Concerns about pest interceptions have been discussed with importers for a number of years. Recognising the importance of the trade, and the impacts of changes to import conditions, MPI has encouraged importers to develop and improved pest management system. In August 2004, a report was presented on work conducted by Crop and Food Research on the use of vapourmate. In practice this was an improvement but did not effectively manage some pests, and the fumigation rates on imported banana remained very high.
147. The majority of bananas are imported from the Philippines and Ecuador, with incidental volumes imported from Mexico, Australia, the Cook Islands, Niue, Panama, Samoa, and Tonga. There are currently measures for fruit flies for bananas from all countries, *Aleurocanthus woglumi* for bananas from Mexico and *Maconellicoccus hirsutus* for bananas from Australia.
148. It is evident from pest interception data that bananas imported into NZ are consistently infested with pests of significance to New Zealand. That is, a large proportion of consignments (99%) are found to have live pests (with regulated pests identified from 75% of consignments). Mites, mealybugs, and ants make up the majority of the regulated pests, which are often only able to be identified to family or genus level.
149. MPI monitors pathways and reviews IHSs to ensure that measures are appropriate to the pest risk posed. Bananas have been of significant concern for some time and keeping risk offshore is a key objective for MPI. As in point 1 above, we are investigating options to improve the performance on this pathway.
150. MPI's concerns were discussed with NZFPIA prior to 2009 and the importers the Association represents are aware of the high (HCN) fumigation rate on this import pathway.
151. The draft IHS contains a requirements for a measure to be applied to manage pests of concern. The IHS indicates that either pest free area, in-field treatments, or post-harvest treatments, or equivalent measures, are acceptable. The least trade-restrictive measures will be identified through negotiation with the country concerned.

NZFPIA Submission

152. The NZ FPIA also notes that further matters in accordance with Sections 23(1-5) of the Biosecurity Act may also be raised following more in-depth and proper analysis by specialist consultants that were not available during the current consultation window.

MPI Response:

153. MPI considers it has correctly followed the requirements of Section 23 of the Biosecurity Act, in developing and consulting on the draft IHS.
154. MPI provided further opportunity to present additional technical information however NZFPIA indicated it did not want to proceed (Letter received from NZFPIA dated 21 May 2015).
155. MPI has established a focus group under FreshPAC to consider appropriate measures that can be applied to manage pests associated with the existing trade.

NZFPIA Submission

156. The new format gives clear indication as to what are guiding comments and that is appreciated. However, there is very limited information both in the text of the IHS, "guidance" or appendices as to the actions likely from intercepting specified regulated pests. Similarly, in the past the listing of non-regulated pests was very helpful to importers, their contracted and approved diagnostic laboratory staff, and presumably MPI's border inspectors. Re-introduction of such information (i.e. non-regulated pests) into the new format is recommended by the NZ FPIA.

MPI Response:

157. IHSs set out the requirements that must be met in order for goods to receive clearance for entry into New Zealand. An IHS is not a place to describe how MPI will verify that these requirements have been met. Guidance for Inspectors is found in other documents including procedure manuals (Border Clearance Procedures) and operating standards.
158. MPI's BORIC and Approved Biosecurity Treatments (MPI-STD-ABTRT) manual will continue to guide biosecurity inspectors on remedial actions for the interception of regulated pests. MPI is intending to update BORIC to provide a more user friendly searchable database directly linked to IHSs in the future. This database will identify all pests of concern to New Zealand (by commodity and the pest presence by country where known), non-regulated (non-quarantine) pests, and hitch-hiker pests in a consistent manner.

NZFPIA Submission

159. The NZ FPIA has highlighted a number of important technical and consistency issues that if left unaddressed will be potentially technically unjustified and discriminatory with respect to several existing IHSs, the measures associated with these IHSs and the associated trade in the affected country:crop combinations.

MPI Response:

160. MPI understand the concerns regarding inconsistencies between new and existing standards. All IHSs will be reviewed as they are converted into the new IHS format and priority will be given to pathways where MPI is concerned about the effectiveness of the current phytosanitary measures, or where there are high levels of non-compliant consignments arriving. As "all country" IHSs are developed, MPI will review these pathways and update existing BQAs and OAPs to export plans in order to improve consistency and deliver better phytosanitary outcomes through the export plan and IHS.
161. MPI is concerned at the high level of non-compliance on current banana fruit imports, and as agreed with NZ FPIA has established a focus group under FreshPAC to consider appropriate measures that can be applied to manage pests associated with the existing trade.

NZFPIA Submission

162. It is unlikely that “pest free areas” or an “agreed treatment” regime will be feasible for the pests listed in S3.2 of the (draft) IHS. Consequently, the default requirement is likely to be “spraying with an approved insecticide effective against this pest” as negotiated in the “Export Plan”.

MPI Response:

163. *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis* are listed as pests on a number of pathways (commodities and countries). In developing the draft IHS, MPI considered whether additional measures were justified because of the potential impact from these pests, and included Targeted Measures in the draft IHS. However following submissions on these pests, MPI has reassessed the risks posed by *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis*. A summary of this reassessment is in Section 5. The reassessment has identified that the risk from these pests was over-estimated in the RMP. The measures required for these pests has therefore been identified as requiring Basic Measures rather than Targeted Measures, that is reverting to the current level of management for these pests.

NZFPIA Submission

164. “Approved insecticide” is not defined nor is it clear what insecticides are approved, what approval criteria are used, who approves them, for what target pests and under what circumstances. Until there is clarity around these issues, it is not possible to determine the technical issues, operational feasibility and other issues (e.g. residue implications) for implementation in the real world.

MPI Response:

165. The details of any pesticide active ingredient, concentration, spray cycles etc. will be captured in the export plan. MPI must be confident that the pesticide is appropriate to effectively manage the pest before the export plan can be signed off. Listing these details in the IHS is not practical because the information often changes. For example the pesticide being used can change quickly if pesticide resistance develops or when an improved chemical becomes available. MPI would want the exporting country to use the best available option (as agreed by MPI and documented in the export plan) to manage pests.

Submission from Progressive Enterprises Ltd.

166. MPI thanks Progressive Enterprises Ltd. (PEL) for their submission on the draft import health standard (IHS) for Banana from the People's Republic of China (Banana from PRC). MPI appreciates and shares Countdown's concerns regarding biosecurity in New Zealand.

PEL Submission:

167. The retail banana market is estimated to be valued at \$170m (ex. GST). Progressive Enterprises Ltd (PEL) is a significant player in the supermarket business in New Zealand with 173 Countdown stores operating nationwide. The fresh produce category is a critical part of our business with a wide range of domestic and imported fresh produce available all year round to our customers. Imported bananas are an integral part of the fresh produce category in all of our stores with a very high weekly turn-over. In fact bananas are the number one retailing product in our business. Consequently, maintaining a reliable and steady supply of bananas is of considerable importance to PEL.

MPI Response:

168. MPI acknowledges that PEL is a significant retailer of bananas in New Zealand. Access to other international markets (such as China) may add to the reliability of banana supply for PEL and your customers.

PEL Submission:

169. Based on initial feedback from our key suppliers, PEL is very concerned about the possible implications of some of the China banana proposals and the potential impacts on the trade for existing banana imports from the Philippines, Ecuador & Mexico in particular.

MPI Response:

170. Minimising impacts on trade is one of the factors considered in determining measures. MPI accepts that measures on one pathway may have an impact on other pathways, however the essential criterion is that any unacceptable risks are managed.
171. MPI is concerned at the high level of non-compliance on current banana fruit imports and has established a focus group under FreshPAC to consider appropriate (equivalent) measures that can be applied to manage pests associated with the existing trade.
172. All existing IHSs will be reviewed as they are converted into the new IHS format and priority will be given to pathways where MPI is concerned about the effectiveness of the current phytosanitary measures, or where there are high levels of non-compliant consignments arriving. As "all country" IHSs are developed, MPI will review these pathways and update existing BQA and OAPs to export plans in order to improve consistency and deliver better phytosanitary outcomes through the export plan and IHS.

PEL Submission:

173. Given the high importance of bananas to the fresh produce category, PEL considers that the very short consultation timeline being given to stakeholders in this instance is not sufficient for informed and proper feedback. Accordingly, PEL seeks an extension to the current consultation period in order to prepare an appropriate submission.

MPI Response:

174. The timeframe for consultation on the IHS for bananas from China is consistent with MPI consultations on other IHSs for fresh fruit for consumption during the past several years. MPI acknowledges that the IHS format has changed but highlights that the supporting risk management proposal provides

considerably more information about New Zealand's biosecurity system, pest risk, assessment and justification for measures to support the format change than has previously been provided.

Submissions from Foodstuffs North Island Limited.

175. MPI thanks Foodstuffs North Island Limited (FNIL) for their submission on the draft import health standard (IHS) for Banana from the People's Republic of China (Banana from PRC). MPI appreciates and shares Foodstuffs' concerns regarding biosecurity in New Zealand.

FNIL Submission:

176. I refer to the email dated 16 January 2015 concerning the (Draft) Import Health Standard for Fresh Bananas from the People's Republic of China (PRC) and the associated proposals contained in the consultation document.
177. Foodstuffs North Island Limited is a significant player in the supermarket business in New Zealand with over 350 New World, Pak n Save and 4 Square supermarkets operating in the North Island as well as our sister company Foodstuffs South Island operating in the South Island.
178. The fresh produce category is a critical part of our business with a wide range of domestic and imported fresh produce available all year round to our customers. Imported bananas are a critical part of the fresh produce category in all of our stores with a very high weekly turn-over contributing close to 10% of the entire Produce Department turnover. Consequently, maintaining a reliable and steady supply of bananas is of considerable importance to the Foodstuffs Group.

MPI Response:

179. MPI acknowledges that Foodstuffs North Island Limited is a significant retailer of bananas in New Zealand. Access to other international markets (such as China) may add to the reliability of banana supply for Foodstuffs North Island Limited.

FNIL Submission:

180. Based on initial feedback from our key suppliers, Foodstuffs is very concerned about the possible implications of some of the China banana proposals and the potential impacts on the trade for existing banana imports from the Philippines and Ecuador in particular but also including Mexico and the potential for trade from Australia and the Pacific Islands (protocols exist but trade is negligible.)

MPI Response:

181. Minimising impacts on trade is one of the factors considered in determining measures. MPI accepts that measures on one pathway may have an impact on other pathways, however the essential criterion is that any unacceptable risks are managed.
182. MPI is concerned at the high level of non-compliance on current banana fruit imports and has established a focus group under FreshPAC to consider appropriate (equivalent) measures that can be applied to manage pests associated with the existing trade.
183. All existing IHSs will be reviewed as they are converted into the new IHS format and priority will be given to pathways where MPI is concerned about the effectiveness of the current phytosanitary measures, or where there are high levels of non-compliant consignments arriving. As "all country" IHSs are developed, MPI will review these pathways and update existing BQA and OAPs to export plans in order to improve consistency and deliver better phytosanitary outcomes through the export plan and IHS.

FNIL Submission:

184. Given the high importance of bananas to the fresh produce category, Foodstuffs considers that the very short consultation timeline being given to stakeholders in this instance is not sufficient for informed and proper feedback.

MPI Response:

185. The timeframe for consultation on the IHS for bananas from China is consistent with MPI consultations on other IHSs for fresh fruit for consumption during the past several years. MPI acknowledges that the IHS format has changed but highlights that the supporting risk management proposal provides considerably more information about New Zealand's biosecurity system, pest risk, assessment and justification for measures to support the format change than has previously been provided.

Submissions from Freshmax New Zealand Ltd.

186. MPI thanks Freshmax New Zealand Limited (Freshmax) for their submission on the draft import health standard (IHS) for Banana from the People's Republic of China (Banana from PRC). MPI appreciates and shares Freshmax's concerns regarding biosecurity in New Zealand.

FNZL Submission:

187. Freshmax is involved in all aspects of the horticultural industry. We are a large exporter, grower, packer, marketer, importer and general distributor throughout NZ, Australia and North America. Due to the diverse nature of our global business we are very aware and familiar with the needs and requirements of quarantine.
188. I personally have been involved in the industry and in particular imports since 1990. At this time bananas were a monopoly controlled by quasi government legislation. Over my 25years of being very actively involved with bananas I have seen multiple MAF (MPI) restructures, personally dealt with many perceived quarantine issues with bananas, run mercy missions with MAF to Ecuador because of issues like lack of knowledge between ripe bananas and green, and participated in multiple IHS reviews.

MPI Response:

189. MPI acknowledges that Freshmax is a significant player in New Zealand horticulture, and importer of bananas. MPI also acknowledges Freshmax has contributed to resolving biosecurity issues associated with the import of bananas.

FNZL Submission:

190. In the early 1990s bananas from Ecuador were very rarely fumigated (In one year there was only 1 fumigation). This was not because lack of pests but because MAF inspectors at the time did a visual inspection and did not use high powered magnifying glasses. My point is bananas have been coming into NZ for over 40 years with the same so called regulated pests on, and yet to my knowledge no one has ever established or shown signs of it. It is fair to say there would not be one road side, compost heap, garden, beach, forest or orchard from Kaitaia to Bluff which has not had a banana skin thrown into it. If a pest or organism of concern was going to establish it would have done so. That is why the industry has invested in research to show that several species mites in particular should be reclassified and not regarded as a regulated pest. As I understand it this report is nearly complete and will be very useful to better inform risk assessment going forward.

MPI Response:

191. MPI operates a continuous improvement policy in biosecurity risk management. This means that measures and requirements will change over time and new information becomes available.
192. Risk is based on a number of factors and the likelihoods and impacts are assessed across all of New Zealand. An assessment of low risk doesn't mean there is no risk or that impacts in limited areas are not significant. The "low risk" is in the context of the whole of New Zealand and is relative to a wide range of risks to plant health in New Zealand.
193. Pest lists and measures will be reviewed when the IHSs are reviewed. Note that a focus group has been set up to review all the current IHSs for the importation of banana fruit.

FNZL Submission:

194. If the same exercise was done on some scale and mealy bugs the results may well be similar. The argument in Peter Thomsons letter, dated 12th Feb, stating 75% of consignments have regulated pests

is on them is only because no one for over 40 years has bothered to really establish if they should be regulated.

195. The current measures are more than sufficient to manage the risks of establishment for these common pests. In fact we argue the current measures in the current trade are extreme and merely result in millions of dollars of cost to the supply chain for no apparent positive prevention (given there are the same insects for over 40 years that have ever established).

MPI Response:

196. See previous response. MPI continually reviews the regulatory status of pests. Where information indicates that the risk from a regulated pest is negligible, MPI will consider modifying the status to non-regulated.

FNZL Submission:

197. The China banana IHS should be used as a catalyst to properly review these measures with a view to reducing the interventions rather than increasing them and nominally implementing them on a pathway that will never see commercial trade. This last point is one of the biggest frustrations that industry has. We are invited to meet the MAF/MPI over the years to discuss and prioritise what the NZ industry thinks are products which could be opened up and have commercial reality. What happens in practice is products which will never see the light of day like bananas from China, Onions from China, and many Pacific Island ventures get all the resource and energy and industry is not really consulted. I fully understand the political argument but at least pick a product that has a chance of resulting in trade. Instead we pick products we don't really want so we in turn put up quarantine trade barriers which will annoy the very trade partners we are trying to appease.

MPI Response:

198. MPI currently has more than 250 requests for the development of IHSs for fresh fruit, vegetables, and cut flowers. Requests are prioritised according to MPI's policy which considers their importance, strategic fit, net benefit, feasibility, barriers, and the amount of work required to complete the request. Bananas from China scored highly in several categories and was requested as a priority by China. Please note that MPI receives funding specifically targeted at developing and implementing IHSs in certain portfolios (e.g. the Pacific).

FNZL Submission:

199. Further to this, I note that the proposed measures have significant implications for other import and possibly some export pathways that will require further discussion and analysis. Freshmax considers it completely unacceptable to use the China banana IHS as a means to introduce new and wide ranging measures, some of which are not justified, inconsistent and/or potentially discriminatory if implemented.

MPI Response:

200. All IHSs will be reviewed as they are converted into the new IHS format and priority will be given to pathways where MPI is concerned about the effectiveness of the current phytosanitary measures, or where there are high levels of non-compliant consignments arriving. As "all country" IHSs are developed, MPI will review these pathways and update existing BQAs and OAPs to export plans in order to improve consistency and deliver better phytosanitary outcomes through the export plan and IHS.
201. MPI is concerned at the high level of non-compliance on current banana fruit imports and has established a focus group under FreshPAC to consider appropriate measures that can be applied to manage pests associated with the existing trade. This will result in the addition or removal of measures for some pests to ensure that we harmonise, are non-discriminatory and that we provide options for equivalent measures for all countries where they exist.

Submissions form Dole New Zealand

202. MPI thanks Dole New Zealand (Dole) for their submission on the draft import health standard (IHS) for Banana from the People's Republic of China (Banana from PRC). MPI appreciates and shares Dole's concerns regarding biosecurity in New Zealand.

Dole Submission:

203. I have only recently returned to New Zealand from business travel and have been caught by surprise with the release of the China banana consultation documents. Accordingly, at this stage the submission can only be considered to be a general response but I feel it is important to get an initial submission into the process to ensure the opportunity is not lost for engagement at future stages in the consultation process.
204. Dole is a multi-national company with a long history in the production, export and sale of bananas around the world with the largest production area in the Industry. On an international scale, New Zealand is a relative small but important market for bananas. Historically, the New Zealand market is approximately 5.2 to 5.3 million cartons of bananas per year. Currently, Dole imports around 200,000 cartons per month – importing from the Philippines and Ecuador using a mixture of containers with a dedicated fortnightly shipping service.
205. Dole is a long-standing and significant player in the New Zealand fresh produce sector with a market share of around 48% for bananas and significant share in other products such as pineapples and papaya. The aforementioned banana shipping service is also important for the supply of Dole branded papaya and pineapples to the New Zealand market. The outgoing shipping service is also important for the export of Kiwifruit, Onions and Squash to Japan.
206. Other important aspects associated with the importation of Dole bananas into New Zealand include investment in facility infrastructure (e.g. dedicated ripening rooms and coolstores), land transport (e.g. specialist transport liners) and consistently high consumer demand (i.e. New Zealand is the largest per capita consumers of bananas in the developed world). The New Zealand banana trade is very important to Dole with significant flow-on benefits to the New Zealand economy and exporters alike.

MPI Response:

207. MPI acknowledges that Dole is a significant importer of bananas in, and the importance of the fortnightly banana boat in New Zealand for outgoing export consignments. The IHS for bananas from China may allow greater options for Dole to source bananas for export to New Zealand.

Dole Submission:

208. As far as we can ascertain, there have been no successful establishments of the pests (e.g. mealybugs, mites and scales) commonly associated with banana imports in the last 30+ years. Dole considers that the current measures are more than sufficient to manage the real risk of establishment for these very low risk but common pests and therefore questions the justification associated with several of the risk assessments and the strength of the associated measures being proposed. In some cases, we believe that there is a strong case for reducing the interventions for managing the risk of establishment (cf. entry) for these pests, several of which occur (or should occur) on the China banana IHS pest list.

MPI Response:

209. From 1990-2007, 104 insect and mite species were recorded as new-to-New Zealand and 12 of these species including Tarsonemid and Tydeid mites were intercepted on fresh produce from 2003-2006 (Frampton & Nalder 2009. A novel analysis of the risk of fresh produce imports. *New Zealand Plant*

Protection 62: 114-123). Tarsonemid and Tydeid mites are frequently intercepted on imported bananas which suggests that bananas may be a pathway of entry for new pests.

210. Risk is based on a number of factors and the likelihoods and impacts are assessed across all of New Zealand. An assessment of low risk doesn't mean there is no risk or that impacts in limited areas are not significant. The "low risk" is in the context of the whole of New Zealand and is relative to a wide range of risks to plant health in New Zealand.
211. 75% of banana consignments arriving in New Zealand are fumigated to manage pests which are found during on arrival inspection. This does not reflect a pathway which is being managed by the current measures on the pathway – rather the phytosanitary risk currently is being managed on arrival in New Zealand.
212. Pest lists and measures will be reviewed when the IHSs are reviewed. Note that a focus group has been set up to review the current IHSs for the importation of banana fruit.

Dole Submission:

213. Dole is also concerned about the lack of proactive consultation on a number of the new measures being proposed for China bananas. It is noted that the IHS requires that "*importers must take all reasonable steps to ensure that goods comply with the IHS (i.e. in accordance with S16B of the Act)*". This is clearly understood and accepted. While we recognise the (draft) IHS is in a "new format", it is apparent that a number of the new policy directions/approaches are also being introduced via the China banana (draft) IHS.

MPI Response:

214. The consultation process addressed by this review of submissions is focused on the measures contained in the draft IHS.

Dole Submission:

215. More specifically, the "new format" contains new policy directions such as the requirement for "Export Plans", new pest categorisations, the use of "Guidance Clauses" and "Guidance Documents", a new requirement for "all produce be packaged in insect proof containers" as well as highly prescriptive measures such as "bananas must be sprayed with approved insecticides with none of these new requirements having been previously consulted on and/or explained to affect industry.

MPI Response:

216. Section 2 of this document provides further details about the new approach to IHSs.
217. MPI considers insect or pest-proofing (a product security measure) justified for commodities which are hosts to significant high risk pests and where re-infestation of a consignment (with target or hitchhiker species) could occur post-phytosanitary inspection in the country of export, or during transit. MPI expects product security to be applied after pre-export treatments on many current commodity pathways. However, where bananas are harvested, packed and shipped in a mature green stage they are considered a non-host for fruit flies and therefore pest proof packaging is not justified. MPI will amend the product security requirements for the "non-host" option for fruit flies.

Dole Submission:

218. Several pest categorisations and proposed targeted measures also create significant inconsistencies with other pathways of similar scope and risk (e.g. the IHS for Australian bananas). If importers are required to *take all reasonable steps to ensure that goods comply with the IHS*, then they must have clear understanding of all aspects of the IHS, including the details of guiding policies, technical requirements, operational requirements, contingencies for failure, certainty around decision-making criteria (e.g. where the use of the word "may" applies for clearance/treatment/reshipment/destruction

decisions at the border and who, how and under what technical/operational information sets inform such decisions). Where there are clear technical inconsistencies and significantly different measures being imposed between existing IHSs and the proposed China IHS, it is important for importers to understand these differences, how they impact commercial trade and how to implement different measures between the respective country/s and product combinations.

MPI Response:

219. MPI agrees that importers require a clear understanding of their responsibilities. The new format IHS provides clear separation of regulatory requirements and guidance and these have been the subject of discussions with stakeholders in a number of fora, including advisory committees. MPI is keen to further engage with stakeholders on these items, however Section 2 of this document provides further details about the new approach to IHSs.

Dole Submission:

220. Dole do not consider that it is acceptable for MPI to introduce significantly different pre-shipment conditions for a new market that are quite separate to the current market requirement for products of similar risk without prior industry consultation.

MPI Response:

221. MPI is concerned at the high level of non-compliance on current banana fruit imports and has established a focus group under FreshPAC to consider appropriate measures that can be applied to manage pests associated with the existing trade.

222. The operating environment for biosecurity is constantly changing including, changes in trade and travel (volumes and countries), climate, and different crops being grown. MPI seeks to continually improve management of biosecurity risk through a number of initiatives including an 'emerging risk' programme, improving risk assessment processes, IHS format and measures, and pathway assurance.

223. MPI agrees that new requirements should not be imposed without consultation unless they are considered urgently required to manage an immediate risk. In this case, the proposed additional requirements are the subject of this consultation process.

224. IHSs will be reviewed as they are converted into the new IHS format and priority will be given to pathways where MPI is concerned about the effectiveness of the current phytosanitary measures, or where there are high levels of non-compliant consignments arriving. As "all country" IHSs are developed, MPI will review these pathways and update existing BQA and OAPs to export plans in order to improve consistency and deliver better phytosanitary outcomes through the export plan and IHS.

Dole Submission:

225. Given that China is a nett importer of bananas, Dole considers that it is highly unlikely that any real trade of bananas will occur from China to New Zealand.

MPI Response:

226. Noted.

Dole Submission:

227. However, the proposed measures have a number of potential and significant implications for other pathways that should be properly consulted on and worked through in a systematic manner. Given the importance of bananas to our business, and the complexity of some of the issues in play, Dole will require more time to discuss the draft IHS with our specialist technical advisers in order to prepare a more comprehensive submission.

MPI Response:

Review of submissions on the draft IHS for Fresh Banana for Consumption from the People's Republic of China

228. The timeframe for consultation on the IHS for bananas from China is consistent with MPI consultations on other IHSs for fresh fruit for consumption during the past several years. MPI acknowledges that the IHS format has changed but highlights that the supporting risk management proposal provides considerably more information about New Zealand's biosecurity system, pest risk, assessment and justification for measures to support the format change than has previously been provided.

Section 2: General Topics Raised

229. The submissions raised a number of points regarding terminology, policy and approach. MPI is keen to continue to engage with stakeholders on these areas. In the meantime, MPI has provided the following summary for your information.

Inspection at the Border

230. Concern has been raised that MPI is moving away from verification inspection at the border. Performance-based inspection has been used by MPI (and its predecessors) for a number of years. For example, MAF (2010) states:
“MAF will use intelligence and risk profiling, supported by sophisticated technology, to identify and assess the level of risk posed by different goods, craft, and people crossing our borders. This will allow us to target resources to the areas of highest risk or where the greatest benefits can be realised.” (page 2)
<<http://www.biosecurity.govt.nz/files/pests/surv-mgmt/surv/surveillance-needs-analysis.pdf>>
231. Inspection is a component of the verification activities at the border, and is part of MPI's operational policy. These activities also include other risk management activities such as profiling. A useful overview of the risk profiling activity undertaken by MPI is available in Issue 86 of the Biosecurity Magazine (15 Sept 2008).
232. Any reduction in the level of inspection from current levels would need to be based on sound evidence of the compliance of a pathway. For example, fresh green beans from Australia are an example of one commodity that is currently approved for lower inspection rates, because of demonstrated compliance and freedom from regulated pests. It would be highly unlikely that reduced inspection rates would apply to any fruit fly host commodities.
233. Before considering a lower inspection rate, information obtained through the intelligence functions in MPI would be carefully assessed. This would include on-arrival inspections, supply chain information, audits of exporting country systems and export plans (where appropriate), facility audits etc. There will not be the possibility of a reduced inspection regime until there is a substantial history of very high compliance with the requirements of the IHS.

Pest identification at the border.

234. The level of pest identification is the subject of a current policy review by MPI. Currently pests are identified either on the request of an importer who has the option of identification or treatment, where it is identified as a potential high impact pest by MPI, or when new trade commences. MPI initiates a 'survey' at the border during the first season of trade for any new high risk commodity such as fruit fly host material. During the survey all pest interceptions are identified to find any pests that may not have been considered during the risk assessment and IHS development stage.

Drivers behind the 'new approach' to biosecurity

235. Biosecurity is one of MPI's highest priorities. MPI has an on-going programme of review for its biosecurity systems and procedures, including import health standards (IHSs). Where technically justified MPI seeks to strengthen phytosanitary measures to ensure best risk management practice, and continually improve biosecurity management for imported plants and plant products. In doing so, MPI aims to achieve the best outcomes for New Zealand's biosecurity in response to new or emerging risks, and new information and technology.

236. Biosecurity is a system and IHSs are only one of the tools used to protect New Zealand. Phytosanitary risk associated with a consignment is managed at several key points along the supply chain including:

Intervention points	Tools
Production, postharvest and pre-export	import health standards
	export systems, export plans
	pathway assessment and assurance visits
	off-shore audits of systems and facilities
Border	import health standards
	border clearance procedures
	document/consignment inspection
	intelligence
	pest identification
	action on detection of a regulated pest
Post-border	surveillance
	response
	pest identification

237. The operating environment for biosecurity is constantly changing including, changes in trade and travel (volumes and countries), climate, and different crops being grown. MPI seeks to continually improve management of biosecurity risk through a number of initiatives including an 'emerging risk' programme, improving risk assessment processes, IHS format and measures, and pathway assurance. The improvements and change in approach are evident in the development of this IHS are in response to the following drivers:

- a) Providing clear IHS requirements, and guidance to improve compliance (Requirements and Guidance programme);
- b) Respond to the governments 'Better Regulation' programme;
- c) Managing risk offshore;
- d) Ensure new and emerging pests are managed on imported plant goods; and
- e) Improving biosecurity management of significant pests

Requirements & Guidance Programme

238. The Requirements & Guidance Programme has been designed to bring improved clarity to MPI standards, ensuring that they are developed in a clear and consistent way, are easy to understand, and easy to find. Five main principles underpin the improvements sought in the new MPI Standards.

- a) The legal requirements in the new standards are differentiated from advisory information and guidance to improve clarity (clear).
- b) The requirements are based on science (as far as possible) and the processes for making and meeting requirements is communicated better within the Regulation & Assurance Branch and with stakeholders (transparent).
- c) Requirements are applied fairly and consistently (equitable), and consulted with stakeholders.
- d) Requirements seek to minimise compliance costs, ensuring that they are risk-based and no more than necessary to achieve the outcomes sought (efficient).
- e) Finally, requirements must manage risk effectively, while being outcome-focused and flexible (effective).

Better Regulation Programme

239. MPI is responding to the Governments programme for "Better Regulation, Less Regulation" by reviewing the way it delivers IHSs. The main changes will be delivered through the Requirements and Guidance

Review of submissions on the draft IHS for Fresh Banana for Consumption from the People's Republic of China

Programme. Improvements in the layout of the IHSs meet contemporary legal best practice (e.g. the introductory sections of the new IHSs).

Managing Risk Offshore

240. As identified in 'Protect New Zealand: The biosecurity strategy for New Zealand (August 2003)' one stated expectation (number 30) is "That there is a continuous, targeted programme to move risk reduction measures offshore". MPI is seeking to strengthen this offshore management through greater visibility of the export systems used by the exporting country NPPO, and the production and pest management activities in the supply chain (export plans).

New and Emerging Risk

241. MPI has a system for identifying new and emerging biosecurity risks. The improved format of the IHSs allows MPI to more rapidly respond to these risks by ensuring reviews and updates can be considered in a timely manner. For example, pest lists were previously presented in each IHS. When a new or emerging pest was identified, all IHSs that consider commodities associated with the new pest had to be individually amended to capture the new pest. This process took significant resource, and resulted in (often) inconsistency between IHSs because of the time lag in updating all the standards. Under the new system the pests will be updated once on a single reference database that links to each standard. The updated information or pest status is then immediately available to all IHS users.

Improving Biosecurity Management of Significant Pests

242. MPI is significantly strengthening biosecurity as evidenced in the new IHSs and related systems through five key elements (described in the remainder of this document):
- a) focusing on the strength of measures (rather than categorising pests);
 - b) using new terminology to describe and focus on measures;
 - c) requiring significant improvements in transparency of export systems;
 - d) requiring documented systems (export plans) on how an export country will meet New Zealand's requirements; and
 - e) committing increased levels of MPI resource to pathway assurance audits.
243. This strengthening of biosecurity may result in concerns being expressed by trading partners and some stakeholders.

Strength of Measures

244. Currently MPI categorises pests using a "risk grouping" (RG) as listed in the first section of the table in Section 3. The pre-export phytosanitary measures and actions (if a pest is detected) on arrival relevant to these pest groups are also listed in table 1.
245. Rather than focusing on categorising pests, MPI is now focusing on the strength of measures required to manage a pest using three categories as listed in table 1; Basic, Targeted, and MPI-Specified Measures (see description below). In particular, where a targeted or MPI-Specified Measure is required then MPI must also have visibility of the NPPO export system, and have a negotiated export plan in order for trade to occur.
246. A number of new terms have been included in the RMP and draft IHS following previous feedback from stakeholders. MPI acknowledges that the transition period between current IHSs and the new format IHSs under the Requirements and Guidance programme will result in some unavoidable inconsistencies for a period of time. When that process has been completed the fresh produce standard 152.02 will no longer exist. Some of the key terms are discussed below.

'Basic Measures', 'Targeted Measures' and 'MPI Specified Measures'

247. The application of measures of different strength against pests previously categorised as RG1 (pest actionable if detected on arrival), RG2 (pests requiring an additional declaration on the phytosanitary certificate), or RG3 (pests requiring treatment) has been in use for many years:
- RG1: phytosanitary inspection, ensuring less than 0.5% of units are infested at 95% confidence;
 - RG2: a 'moderate' strength measure where the NPPO provides an additional declaration that this pest is absent from the consignment; and
 - RG3: the application of a measure that provides a very high level of confidence that the pest is managed (usually a post-harvest treatment).
248. The use of RG1-3 categories is a method of defining the risk and/or impact an organism poses to New Zealand. However, anecdotal evidence suggests that the use of RG1-3 is confusing for exporting countries and some domestic stakeholders. In addition, as the focus of the IHS is to identify 'requirements to manage phytosanitary risks', MPI's view is that selecting an appropriate measure is the key activity in risk management rather than categorising the pest. Identifying measures of certain strengths ensures consistency with IPPC/WTO SPS guidelines, and consistency between different IHSs.
249. Pests categorised as regulated (or quarantine) pests by New Zealand require measures to be applied. As described in table 1, three options are available:
- I. Commercial production, phytosanitary inspection and certification by the exporting NPPO (minimum requirement for all products unless excluded in the IHS scope);
 - II. Commercial production, export system in place (with audits if required), targeted measures agreed in the export plan, phytosanitary inspection and certification, with an additional declaration on the phytosanitary certificate.
 - III. Commercial production, export system in place (with audits if required), agreed export plan (audited as required), phytosanitary inspection and certification with an additional declaration on the phytosanitary certificate, and may include some or all of the following:
 - a. MPI specified pre-harvest measures,
 - b. post-harvest measures (treatment),
 - c. treatment parameters documented on phytosanitary certificate,
 - d. treatment certificates.
250. For ease of reference these options are labelled 'Basic Measures', 'Targeted Measures' and 'MPI-Specified Measures' respectively.

Basic Measures

251. Commodities must be commercially produced using standard cultivation, pest-control, harvesting, inspection and packing activities. Basic Measures are applied to all pests associated with a fresh produce commodity, followed by official inspection and certification.

Targeted Measures

252. Growing systems and agricultural practices differ between countries but can be similarly effective. For example, some countries use fruit bagging to exclude pests, or hand held air blowing of individual fruits in packing sheds. Neither of these methods are used in New Zealand. Targeted Measures include a very wide range of options and may be negotiated in the 'export plan' (see below). Usually these measures are based on qualitative information, expert judgement and experience, and quantitative data if

available. The new term 'Targeted Measures' aligns with the risk posed by RG2 pests in the current 152.02 IHS.

253. MPI considers that in many cases measures for the pests previously categorised as 'RG2' (now pests requiring 'targeted measures') are insufficient and should be strengthened. The previous requirements for an AD did not always document the basis on which the AD was provided and in reality provided no more assurance than for an RG1 pest (inspection and certification). Given that RG2 pests have been classified as presenting a greater risk than RG1, the strength of the measure should reflect that.
254. Instead of requiring just phytosanitary inspection and an additional declaration on the phytosanitary certificate, the targeted measures include, for example, in-field monitoring by competent people and the application of a pest control activity (in-field or post-harvest) that targets that pest (for example, a miticide for mites). The specific activities targeting these pests will be detailed in the agreed export plan providing greater clarity on how the pest will be managed. MPI will audit these activities.

MPI-Specified Measures

255. MPI-specified measures are used for the most serious pests for New Zealand, for example fruit flies. MPI-specified measures are based largely on quantitative data supported by qualitative information and are used when a very high level of assurance is required. The new term 'MPI-specified measure' aligns with the risk posed by RG3 pests in the current 152.02 IHS. Wherever possible, MPI uses ISPMs (or regional standards if applicable) to identify the minimum requirements for imported plant commodities. MPI specified measures are subject to audit by MPI.

Export systems

256. The 'export system' is the system used by the exporting country NPPO to conduct the necessary oversight in order to provide an assurance to New Zealand (the phytosanitary certificate) that risks posed by pests present in that country are managed. This export system should be consistent with ISPM 7 and is subject to a systems audit by New Zealand where required. The CTO also needs to be satisfied as per section 1.5 (1) of the IHS.
257. The export system describes the activities, systems and procedures of the NPPO. It does not include pest control activities unless the NPPO directs these activities. Pest control activities are described in the export plan.
258. In accordance with the IPPC, the NPPO is responsible for providing an assurance that exported product meets the importing country requirements. This assurance is provided through a phytosanitary certification system (as it is for plant products exported from New Zealand).
259. In accordance with ISPM 7: *Phytosanitary certification system*, "the NPPO should have a management system that ensures that all legislative and administrative requirements related to phytosanitary certification are satisfied and be able to:
- identify a person or office within the NPPO responsible for the phytosanitary certification system;
 - identify the duties and communication channels of all personnel involved in phytosanitary certification;
 - employ or authorise personnel who have appropriate qualifications and skills;
 - ensure that adequate and sustained training is provided;
 - ensure that adequate personnel and resources are available".
260. In addition the NPPO "should have the capability to undertake the following functions:

- document and maintain the information regarding the phytosanitary import requirements where needed for phytosanitary certification and provide appropriate work instructions to personnel;
- perform inspection, sampling and testing of plants, plant products and other regulated articles for purposes related to phytosanitary certification;
- detect and identify pests;
- identify plants, plant products and other regulated articles;
- perform, supervise or audit the required phytosanitary treatments;
- perform surveys and monitoring and control activities to confirm the phytosanitary status attested in phytosanitary certificates;
- complete and issue phytosanitary certificates;
- verify that appropriate phytosanitary procedures have been established and correctly applied;
- investigate and take corrective actions (if appropriate) on any notification of non-compliance;
- produce operational instructions to ensure that phytosanitary import requirements are met;
- archive copies of issued phytosanitary certificates and other relevant documents;
- review the effectiveness of phytosanitary certification systems;
- implement, to the extent possible, safeguards against potential problems such as conflicts of interest and fraudulent issuance and use of phytosanitary certificates;
- conduct training for personnel;
- verify the competency of authorized personnel;
- ensure through appropriate procedures the phytosanitary security of consignments after phytosanitary certification prior to export”.

261. Currently MPI relies on verification that these activities are undertaken in the export country. The principle method of verification is the inspection of documentation and goods by Quarantine Officers (previously called Quarantine Inspectors) on arrival in New Zealand. However in reality little information is available about the export systems in operation in these export countries. For some trading partners the long history of trade and exchanges between officials, and in some cases audits of components of these systems, has provided confidence that the export systems are robust and appropriate for New Zealand.
262. Improved knowledge of the export systems (through systems audits) especially for new trading partners will provide an improved level of assurance for New Zealand in cases where pre-export measures (other than official inspection and certification) for certain pests are required.

Export plans

263. Export plans will be a requirement for all new IHSs (developed under the new IHS format) that include pests for which measures over and above basic measures are required (Targeted and/or MPI-Specified Measures). Existing IHSs supported by historical Bilateral Quarantine Arrangements (BQAs) will also be converted into negotiated export plans and rolled out over time. The Australian BQA for fruit fly commodities will be MPI’s first priority for conversion.
264. Export plans will detail how the exporting country will meet the import requirements for New Zealand, and will provide the basis for pathway assurance audits. The plans will be negotiated with MPI, and trade will not be able to commence until a Chief Technical Officer (CTO) is satisfied that the export system and export plan meets New Zealand’s expectations for biosecurity. The details contained in the plans will depend on the commodity, pests and the country systems. Examples of items that may be in an export plan include:
- training programmes to ensure competent personnel are available for critical tasks;
 - product traceability (including registration of participants);
 - records completion and maintenance;

Review of submissions on the draft IHS for Fresh Banana for Consumption from the People’s Republic of China

- procedures for the application of measures specified in Part 3 of the relevant IHS;
 - product security following the application of measures;
 - monitoring and oversight of the measures;
 - product security during packing and storage; and
 - NPPO inspection and phytosanitary certification.
265. Export plans will contain a description of the operational system supporting the measures required in the IHS. Export plans will not contain any measures that are additional to those contained in the IHS. Export plans may include but are not limited to the operational responsibilities described in section 2.2 of ISPM 7 (2011): *Phytosanitary certification system*. The level of detail contained in the export plan will reflect the measures and phytosanitary assurances required for the pests associated with the commodity.
266. Traceability is an important component of a secure phytosanitary certification system. MPI may require registration of producers, packers and exporters where this is deemed necessary to maintain full traceability and confidence in the export system. Usually MPI requires the exporting country NPPO to register the participants. Where the supply chain requires a treatment (e.g. fumigation or VHT) MPI requires that the facility is approved by the exporting country NPPO for that purpose, and will be subject to audit by MPI.
267. Export plans are similar to Official Assurance Programmes (OAPs) and export protocols. The term 'export plan' was chosen following stakeholder concern at the use of 'official' and 'protocol' which imply that the documents have government to government agreements or treaty status (which they do not). Details of export plans may be shared with target stakeholders but will not be publically available. This aligns with MPI's approach for password protected publication of Official Assurance Programmes for the export of specific New Zealand plant products. From time to time information identified as sensitive or confidential will not be shared, for example, details of an integrated pest management programme.
268. The roll-out for the new requirements for export plans will take some time. Therefore MPI will prioritise new IHSs and reviews of IHSs requiring export plans onto the work programme. The highest priority commodities will be existing IHSs supported by historical Bilateral Quarantine Arrangements (BQAs) concerning the access of host material of fruit fly species of economic significance. The conversion of the Australian BQA to an export plan will be MPI's first priority to align with Australia's review of their export system.
269. Existing OAPs, BQAs, and other export protocols for currently traded commodities will be deemed equivalent to export plans until such time as they have been reviewed. Where no export plan exists an export plan will be required only when the IHS is reviewed or MPI identifies significant non-compliances with the current IHS.
270. MPI will prioritise resources to ensure existing risks are effectively managed, i.e. risks on existing pathways, rather than the development of new IHSs (new risk pathways). This means that resource is focused on ensuring existing IHSs remain fit for purpose, are reviewed and if necessary updated. The development of Export Plans are a significant improvement in the management of risk on existing pathways.

Section 3: Description of the different measures used in import health standards

	Previous Approach			New Approach		
Category	Previous description	Pre-export measures	Actions on arrival (if pest detected)	New description	Pre-export measures	Actions on arrival (if pests are detected)
'Low' risk pest	RG1	<ul style="list-style-type: none"> Phytopsanitary inspection Certification 	<ul style="list-style-type: none"> Treat and release 	'Basic Measures' (commercial production)	<ul style="list-style-type: none"> Commercial production (e.g. GAP) Phytopsanitary inspection Certification. 	<ul style="list-style-type: none"> Treat and release
'Medium' risk pest	RG2	<ul style="list-style-type: none"> Phytopsanitary inspection Additional declaration Certification. 	<ul style="list-style-type: none"> Treat, re-ship or destroy. 	'Targeted measures'	<ul style="list-style-type: none"> Commercial production Export system in place (with audits if required) Targeted measures Agreed export plan Phytopsanitary inspection Additional declaration Certification. 	<ul style="list-style-type: none"> Treat, re-ship or destroy Review measures Review export plan
'High' risk pest	RG3	<ul style="list-style-type: none"> Pre-harvest measures (if required) Post-harvest measures (treatment) Treatment parameters documented on PC Treatment certificates (if required) Phytopsanitary inspection Additional declaration Certification. 	<ul style="list-style-type: none"> Re-ship or destroy Suspend pathway Review pathway 	'MPI Specified measures'	<ul style="list-style-type: none"> Commercial production Export system in place (with audits if required) MPI specified pre-harvest measures (if required) MPI specified post-harvest measures (treatment if required) Treatment parameters documented on PC Treatment certificates (if required) Agreed export plan (audited as required) Phytopsanitary inspection/ Certification Additional declaration 	<ul style="list-style-type: none"> Re-ship or destroy Suspend pathway Review measures Review export plan Review export system

Review of submissions on the draft IHS for Fresh Banana for Consumption from the People's Republic of China

Section 4: References

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The risk analysis procedures outlined in this document are currently under review, and may not reflect the current procedures.

Section 5: Reassessment of Strength of Measures Required for Mites and Thrips

Tetranychus piercei, *Eutetranychus orientalis* and *Thrips hawaiiensis* are listed as pests on a number of pathways (commodities and countries). In developing the draft IHS, MPI considered whether additional measures were justified because of the potential impact from these pests, and included Targeted Measures in the draft IHS. However following submissions on these pests, MPI has reassessed the risks posed by *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis*.

MPI previously assessed these pests as requiring Targeted Measures in the draft IHS. However the reassessment has confirmed that Basic Measures (i.e. the status quo) are justified as follows:

Both *T. piercei* and *E. orientalis* are likely to be restricted by climate to the warmer, drier parts of the North Island (based on biological parameters and Climate Match Index). They are able to reproduce without mating so theoretically they could each found a population. They are polyphagous and amongst their host range are some crops of economic importance to New Zealand. Severity of damage is related to rapid population increases in highly favourable conditions. It is considered that conditions would be less than optimal and thus population growth would be limited and therefore their impact also limited. *Thrips hawaiiensis* was previously assessed as being able to establish and have unwanted impacts (MAF 2008, 2010) and it is considered climate would also limit distribution and damage.

Bananas have been coming into New Zealand for almost 50 years. The volumes per month are substantial, around 360,000 cartons/month (approx. 20 hands/carton). In the time that New Zealand has been keeping electronic records of interceptions on fresh produce, there have been no identifications of tetranychid mites from more than 3,000 mite interception records on the banana pathway, and only 4 records of thrips (one identified as *Frankliniella* sp.) from over 7,600 records of interceptions on bananas². It is considered significant that *Tetranychus piercei*, *Eutetranychus orientalis* and *Thrips hawaiiensis* have not been previously identified from the banana pathway. They are all reported as present in the Philippines which has been a supplier of bananas since at least 1999 up to present time. Both mites are primarily associated with leaves and the thrips is primarily associated with flowers. All three species are unlikely to be associated with mature green fruit, unless there are severe infestations in the field. Basic Measures are required for these three regulated species in other Fresh Produce IHSs.

The combination of factors (low probability of entry, low-mod probability of establishment, low impacts- moderate for *Thrips hawaiiensis*; long trading history in bananas with no records of identifications from the banana pathway, and current requirements in other FP IHSs) leads to the recommendation that the status quo remains, that is, the requirement for *T. piercei*, *E. orientalis* and *Thrips hawaiiensis* on bananas from China is 'Basic Measures'. Basic Measures are considered as commercial production and phytosanitary visual inspection. Should either mite or thrips be detected pre-export or post-export a remedial action will be required. The MPI approved remedial action for surface pests on bananas is HCN at 3g/m³ for 2 hours (bottled HCN gas) or 2 hours and 30 minutes (HCN discoids) as per the MPI standard MPI_TRT_ABRT.

² From 1988 to Feb 2014

Review of submissions on the draft IHS for Fresh Banana for Consumption from the People's Republic of China

Appendix 1: Submissions Received