

39 O'Connell Street  
North Melbourne  
Victoria 3051  
p: +61+(0)3 9329 3511  
f: +61+(0)3 93293522e:  
applenpear@apal.org.au



**Apple & Pear Australia**

23<sup>rd</sup> March 2009

Dr Colin Grant  
Chief Executive Biosecurity Australia  
7 London Circuit, (GPO Box 858)  
CANBERRA ACT 2601

Dear Colin,

Please find attached the apple and pear industry response (prepared by Apple & Pear Australia Limited) to the draft Import Risk Analysis report for fresh apple fruit from the People's Republic of China.

You will note from our response that industry has some significant concerns about a number of issues that must be addressed before the Import Risk Analysis can be finalised. These concerns are succinctly outlined in our conclusion and we look forward to a detailed response by Biosecurity Australia (BA) on all these issues.

APAL would welcome the opportunity to discuss all of our issues in a meeting/workshop with BA at a mutually convenient time. We would ensure that appropriate industry personnel are available to expand upon the views described in our response. We believe that such a meeting is important so that we can more clearly explain the issues raised in our response and to achieve an outcome that accurately determines the risks associated with the import of apples from China and leads to the establishment of protocols to manage these risks.

Thanking you for the opportunity to submit the response to the draft IRA. We look forward to further discussion on the subject.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Tony Russell'. The signature is fluid and cursive, with a long horizontal stroke at the end.

Tony Russell  
General Manager



**Apple & Pear Australia Ltd**

Apple & Pear Australia Limited

Response to the Biosecurity Australia  
Draft Import Risk Analysis Report for  
Fresh Apple Fruit from the People's  
Republic of China

March 2009



## Contents

Glossary .....	4
Summary .....	5
Introduction.....	5
Language Concerns .....	6
Scope of the IRA .....	6
Regional Differences .....	6
Volume of trade .....	7
Commercial production practices .....	8
The use of existing policy .....	8
Cost of Incursions and Eradication.....	9
Pest and disease comments.....	9
Pests .....	9
Bactrocera dorsalis (Oriental fruit fly).....	9
Rhynchites auratus and Rhynchites heros .....	10
Risk management for arthropod pests .....	10
Diseases.....	11
Fire blight – Erwinia amylovora.....	11
Japanese Apple Rust - Gymnosporangium yamadae.....	12
Marssonina blotch - Diplocarpon mali .....	13
European Canker - Neonectria ditissima.....	14
Pest risk management measures and phytosanitary procedures .....	14
Operational systems for maintenance and verification.....	14
Fruit fly Pest Free Areas (PFAs) .....	15
Conclusion .....	15
References.....	18

## **Glossary**

ALOP	(Australia's) Appropriate Level of Protection
APAL	Apple & Pear Australia Limited
AQSIQ	General Administration for Quality Supervision, Inspection and Quarantine of the People's Republic of China (formerly CQSIA)
BA	Biosecurity Australia
CIQ	China Entry-Exit Inspection and Quarantine Bureau
EPPRD	Emergency Plant Pest Response Deed
The industry	Australian apple and pear industry
IRA	Import Risk Analysis
PFA	Pest Free Area
NZ	New Zealand

## **Summary**

The Draft Import Risk Analysis (IRA) for Chinese Apples was released for public comment by Biosecurity Australia on 21 January 2009 and Apple and Pear Australia Ltd (APAL) submits comments, as outlined within this document, for consideration prior to finalisation of this draft import policy.

The Draft IRA considers quarantine risks associated with the importation of fresh mature apple fruit, from all commercial apple-producing provinces, and all commercially produced apple cultivars, in China. The Australian apple and pear industry (the industry) feels that the broad and generic approach to risk assessment does not adequately consider, in sufficient detail, the possible risks posed by the wide diversity of production regions and practices within China.

The industry has previously raised concerns regarding the status of fire blight in China and these concerns have not been adequately addressed within the Draft IRA.

Biosecurity Australia has proposed the use of systems approaches and establishment of pest free areas (PFAs) as risk management measures for the majority of pests and diseases considered to be above Australia's appropriate level of protection (ALOP). The adequacy and level of confidence in pest risk management measures will be of crucial importance to the industry. It is requested that a more co-operative and communicative approach be taken in the development of operational systems for the importation policy for Chinese apples, should importation be recommended. All such systems can only be considered as acceptable if there is a high level of confidence that they will lower risk to Australia's ALOP or lower taking into consideration general requirements and also requirements specific to the conditions prevailing in each production area.

Finally, the industry will continue to seek a strong partnership approach in the development, implementation and verification of import policy with the Australia Government. This approach will help to foster the industry's confidence in the IRA process and utilise the great wealth of industry expertise in pest management and operational issues to ensure Australia remains free of the many pests and diseases of concern.

## **Introduction**

The Draft IRA for Chinese Apples was released for public comment by Biosecurity Australia on 21 January 2009 and APAL has now completed its analysis of the draft. This submission builds upon comments provided by APAL to the Issues Paper for Fresh Apple Fruit from the People's Republic of China (July 2008). Unfortunately, the industry's concerns raised in comments to the Issues Paper have not been addressed within the Draft IRA document. The industry remains concerned by the scope of the IRA, the status of fire blight in China and the lack of industry consultation on the development, implementation and verification of proposed risk management measures. In addition, specific comments on pest and diseases and their proposed risk management measures are provided herewith.

## **Language Concerns**

Researchers assisting APAL with this response commented upon the difficulties that they encountered in accessing research documents and reports regarding the Chinese apple industry and the pests and diseases that have been documented to occur. Many vital documents appear to be available only in Chinese with only brief English language extracts available. This situation precludes adequate industry scrutiny of all available information and the information upon which BA has relied to produce the Draft IRA. In order to provide industry with sufficient opportunity to scrutinise the final IRA, all documents upon which BA relies or that BA cites in its reference list must be available to all stakeholders in English in their entirety.

## **Scope of the IRA**

The Draft IRA considers quarantine risks associated with the importation of fresh mature apple fruit, free of trash, from all commercial apple-producing provinces, and all commercially produced apple cultivars, in China.

The consideration of all of Chinese production regions and cultivars within the Draft IRA would appear to be contrary to many previous IRAs where only specific production regions and or cultivars were considered. Chinese and Korean pears on a regional basis and Fuji apples from Japan on a varietal basis illustrate this point.

The consideration of a countrywide application may seem to be a more efficient process. However, the ability to assess adequately risk across such a large country with many distinct geographic regions, varying regional distributions of known pests and diseases, widely varying climatic conditions and variable quality of pest and disease distribution data remains questionable. The questionable ability to assess adequately risk over such an area also applies to the ability to manage adequately identified risks using a series of systems approaches as proposed within the Draft IRA.

The Draft IRA would have provided a much greater level of certainty to stakeholders and enabled a greater level of detailed analysis if production regions had been assessed individually, rather than the generic approach that has been adopted by Biosecurity Australia and the industry will consider that the final IRA will be incomplete unless such a regional approach is used.

## **Regional Differences**

Australia is a large land mass with a wide range of climatic conditions experienced between states and between regions within states. Australia has recognised that different climatic conditions create differences in pest and disease pressure and has a range of state to state quarantine measures to protect areas that are free of specific pests. Likewise, China is a very large land mass with a wide spread of climatic conditions prevailing.

The industry remains concerned that this IRA is for all varieties of apples from the whole of China. It is not unreasonable to consider China on a province by province basis or even to consider several provinces with very similar climates in a single IRA, however, the multitudinous issues raised by the various combinations and permutations of climatic conditions and pest pressures means that no IRA that attempts to consider the entire country as a source of product can be complete without considering ALL production regions one by one and considering pest mitigation measures for each one depending upon current pest and disease status and prevailing climatic conditions.

As this is currently the case within Australia, and WTO is strong on allowing equivalence between countries, this should not be considered unreasonable.

In the draft IRA document, BA regularly qualifies its descriptions of Chinese apple production areas with the adjective "commercial". If the IRA is to be focussed on commercial production regions, and if BA has only the resources to consider the major commercial production regions then the final IRA must be limited to addressing only those specific and defined regions.

## **Volume of trade**

The volume of trade has been estimated to be "approximately 20%" of the domestic fresh apple market, the same as that estimated for apples from New Zealand in the Final Import Risk Analysis Report for Apples from New Zealand (Biosecurity Australia 2006).

The industry requires that the final IRA include an explanation of the mechanisms that will be in place to monitor volumes of trade and reassess risks should volumes exceed those estimates. If the 20% level is exceeded the estimated risk will then exceed Australia's appropriate level of protection (ALOP). The industry requires that a final IRA clarify that additional volume of trade in Chinese apples would constitute an unacceptable risk for Australia and a description of the mechanisms that would be applied to halt trade until the risk is reassessed and additional risk management measures applied.

This information is not provided. It would aid in transparency of the process, if risk is estimated upon volume, for the associated mechanisms for volume monitoring and reassessment to be clearly defined within the methodology.



## **Commercial production practices**

Biosecurity Australia considered the information on the existing commercial production practices provided by China and other sources when estimating the unrestricted risk of pests. The information was verified when officers from Biosecurity Australia travelled to northern China to observe the existing commercial production practices and processing procedures for fresh apple fruit in Shandong province in July 2006 and Shaanxi, Shandong and Hebei provinces in September 2008. The industry is concerned, however, that the practices in the major commercial production regions are not necessarily reflected in all production regions and that observing large commercial orchards in three provinces is not an adequate reflection of the whole of the Chinese apple industry in all regions where the fruit is grown. The scope of the IRA means that the potential for widely varying cultivation practices must be of concern to BA and must be taken into account in the final IRA.

The industry is concerned that the visits to China were not conducted at appropriate times to see all of the pests and diseases that might be of concern. In particular, visits to Chinese production areas were not conducted in the spring when the symptoms of fire blight would be visible. As outlined within the industry response to the Issues Paper for Chinese Apples the industry remains concerned about the status of fire blight in China and these concerns will be outlined within the disease section of this report.

## **The use of existing policy**

For pests that had been considered by Biosecurity Australia in other risk assessments and for which import policies already exist, a judgement was made on the likelihood of entry of pests on the commodity and whether existing policy is adequate to manage the risks associated with its import. Existing policy was cited for NZ and Japanese apples within the Draft IRA for Chinese Apples. This policy has been cited and used despite the fact that there have not been any imports of NZ or Japanese apples to date. The use of this existing policy must be questioned when trade has not occurred and a judgment regarding the adequacy of existing policy cannot be made. The use of existing policy cannot be justified, when no trade has occurred and the industry expects that the final IRA will not use this device.

## **Cost of Incursions and Eradication**

Currently the Australian apple and pear industry, through its peak industry body APAL, is a signatory to the Emergency Plant Pest Response Deed (EPPRD). Through this instrument, the industry agrees to share the costs of any eradication measures for emergency plant pests with the federal and state governments. Although eradication of such pests is an important issue for the industry, the industry would consider its position and its commitment very carefully should it be shown that any emergency plant pest was introduced into Australia through the failure of mitigation measures and practices put into place through the process of an IRA. The federal government agencies involved in the processes of safeguarding Australian agriculture must take some responsibility for their actions. Recommending unproven risk mitigation measures which subsequently fail will bring significant disadvantage to the growers who are unfortunate enough to be affected by the pest in question and, possibly, significant industry-wide disadvantage. Should the pest incursion be traceable to a failure of risk mitigation and the actions of BA or AQIS, there is no reason why the individual growers and the industry as a whole should be further disadvantaged by having to contribute to the potentially major costs of eradication. The industry will certainly start its deliberations from the standpoint of government responsibility to pay for the shortcomings of its employees.

## **Pest and disease comments**

### ***Pests***

#### **Bactrocera dorsalis (Oriental fruit fly)**

Oriental fruit fly is correctly identified in the Draft IRA as an important pest of quarantine concern. Further, the Draft IRA proposes that the importation of fresh apple fruit to Australia from all commercial production areas of China be permitted subject to a range of quarantine conditions, including the establishment of pest free areas (PFAs) for Oriental fruit fly.

The draft IRA notes that currently the majority of exported apples are produced in the two major apple-producing provinces of Shaanxi and Shandong and Figure 3.1 in the Draft IRA indicates the main apple production areas to be Beijing, Gansu, Hebei, Henan, Liaoning, Ningxia, Shaanxi, Shandong and Shanxi. However, Wu *et al.* (2007) shows that significant production (at least as much as in Beijing and Ningxia) occurs in Jiangsu, Anhui, Xinjiang, Jilin, Sichuan, Yunnan and Heilongjiang. Some of these provinces are in the south and are extremely unlikely to achieve pest-free status for *B. dorsalis*. Clearly only those provinces achieving pest free status for *B. dorsalis* can be considered as a potential source for fruit to be exported to Australia. Further comments are provided on China's fruit fly free areas under the operational policy section of this submission.

## Rhynchites auratus and Rhynchites heros

The weevils were both rated as a very low unrestricted risk. This rating is a reflection of the very low rating given for the likelihood of importation. A similar rating for the likelihood of importation was given for *R. heros* for Ya pears from China (Biosecurity Australia 2005). It is assumed that a primary reason for this assessment was that the adult weevils tend to sever the stalk after ovipositing in the fruit. Certainly, this behaviour is characteristic of these and other species in the genus but no evidence is presented quantifying the frequency of the stalk severing (which can be complete or partial) and whether this behaviour will occur in mature fruit (post-bagging). This evidence will be a vital part of justifying the very low risk rating in the final IRA. If such evidence is not available then the risk rating must be revised upwards and other risk mitigation methods considered.

The Draft IRA notes that the distribution of *R. heros* in China is more widespread than *R. auratus* which is only recorded in Xinjiang Uygur Autonomous Region. This would indicate that the likelihood of importation for *R. heros* would be higher than for *R. auratus*. In the absence of quantitative information, APAL submits that in the final IRA a low rating should be given for the likelihood of importation of *R. heros*, which would elevate *R. heros* to an overall rating of low and necessitate the introduction of risk management protocols.

### Risk management for arthropod pests

The monitoring and detection surveys for pests that require orchard management measures to be conducted by AQSIQ/CIQ in registered orchards for export should include the use of pheromone traps for *Carposina sasakii*, *Grapholita inopinata* and *Adoxophyes orana*. These trapping records would provide an important annual record of pest phenology and intensity, as well as providing guidance for the Chinese growers to ensure appropriate insecticide treatments were applied. Trapping records would provide an overview of pest pressure in each orchard and assist in identifying any management flaws if infested fruit is detected, in China or Australia. There are robust phenological models for *Carposina sasakii* published from Korea, which would be applicable to northern China (Kim and Lee 2003; Kim *et al.* 2000, 2001).

In previous assessments e.g. for ya pear (AQIS 1998a), AQIS did not support the use of pheromone traps for pests such as *Carposina sasakii*.

Issue 22:

Pheromone traps for lepidoptera: it is believed that there would be pheromone traps available for the most significant tortricid species of concern (*Carposina sasakii* and *Cydia inopinata*).

AQIS's position:

AQIS will not require the use of pheromones for monitoring lepidoptera since bagging (assuming all apples are, indeed, bagged) is used for exclusion of lepidopteran pests. Pheromone traps will potentially attract pests from outside the export area and are not considered a suitable management option.

The position adopted by AQIS on use of insect pheromones for monitoring pest Lepidoptera does not seem justified. Pheromone traps are attracting male not female moths so there can be no suggestion that the traps increase the likelihood of increasing pest populations of female moths. Pheromone traps are used worldwide as key tools for management of pest Lepidoptera and would be an entirely suitable component of a systems approach to pest management. It is not proposed that pheromones are to be used for mating disruption or for mass-trapping.

The use of pressurised air blasting for mealybugs and mites has been suggested as a risk management measure. Efficacy data for this risk management measure must be provided by Chinese authorities for these pests. There is significant doubt that this technique will remove all life stages, especially mite eggs. To rely on this technique every piece of fruit will need to be treated and a system for verification of the application of the treatment to all fruit instituted. Practical experience would indicate that this is not possible. Air blasting, therefore would not form part of any effective risk mitigation regime.

The view that air blasting cannot be effective in risk mitigation is supported by comparable studies using high-pressure water for disinfestation has been published in New Zealand and shows the varying efficacy of the technique against different arthropods (Jamieson *et al.* 2000; Whiting *et al.* 1998). Vincent *et al.* (2003) in their review of managing agricultural insects with physical control methods does not cite the use of air-blasting for disinfestation as an acceptable method for risk management.

It is of great concern that interceptions of *Carposina sasakii* are known to occur on internationally traded fresh fruit. For example, the draft IRA notes that "*C. sasakii* is found by the United States Department of Agriculture inspectors almost every year on fresh fruit from Japan and Korea (CAB International 2008)." An analysis of US interception data for *C. Sasakii* on Japanese and Korean fruit must be conducted to ensure that this pest will not be introduced with fresh apple fruit from Chinese production areas. Given the history of detection in export fruit for this very serious pest, APAL considers that only the combined cold treatment and methyl bromide fumigation can be considered as effective control of *Carposina sasakii*. This measure was originally mandated for apples exported from Japan (AQIS 1998b).

## ***Diseases***

### **Fire blight – *Erwinia amylovora***

The industry has previously raised concerns regarding the status of fire blight in China. The industry feels that these concerns have not been adequately addressed within the Draft IRA. However, Biosecurity Australia did provide a suggestion that fire blight like symptoms observed by scientists whilst conducting field trips to Chinese production regions were caused by cicadas depositing eggs within the shoot tips (Appendix D). To verify this contention the final IRA must provide reports of samples of the shoots showing symptoms having been taken, positive identification of the cicada eggs having been made, verification that the deposits of eggs do cause the 'shepherds crook' like symptoms and the thorough investigation of these observations.

The movement of infected nursery stock is a well document means of entry and spread of fire blight. Australia has stringent entry and post entry requirements in place for all nursery stock, including apple budwood. The industry understands that China has some quarantine conditions in place for the entry of budwood into China. Given the severity of the fire blight disease and the potential threat to the Australian industry should infected apples enter, the industry insists that the final IRA include a thorough review of Chinese entry requirements for apple budwood conducted by Biosecurity Australia and that the conclusions of such an investigation show that the quarantine measures in place in China are equivalent to those in place in Australia and provide a similar level of security.

The industry understands that Chinese authorities have provided survey results and testing for fire blight in apple and pear production areas of Shaanxi, Hebei and Shandong but this is not all production areas (see above). The surveys and testing concluded that no fire blight had been found. This is important information that would provide strong reassurance to the industry that these areas are indeed fire blight free. Details of this information were not provided within the draft IRA but, for the sake of transparency, must be provided in the final document.

Details of regular orchard inspections by the Chinese authorities must be included in the final IRA and a regime of regular inspections and reporting must be included in any risk mitigation regime. Chinese orchards must be able to demonstrate that fire blight is known not to exist in all provinces that produce apples.

### **Japanese Apple Rust - *Gymnosporangium yamadae***

There are serious errors in the account of *Gymnosporangium yamadae*. The draft IRA claims that the alternate hosts of *G. yamadae* are “juniper (*Juniperus* spp. and *Sabina* spp.)” and the primary hosts are “rosaceous hosts of the subfamily Maloideae”.

However, all recent accounts of the fungus state that its only alternate host is *Juniperus chinensis* (Teng 1996; EPPO/CABI, 1997; CABI 2007). There is no evidence that species of *Juniperus* subgenus *Sabina* have ever been infected by *G. yamadae* and the European Plant Protection Organization refers to reports of occurrence on *Juniperus* subgenus *Sabina* as “without foundation”.

Similarly the only primary host is the genus *Malus* (apples and crab apples): other genera of Rosaceae are not infected. The alternate host error permeates all discussion of the risk of *G. yamadae* introduction, establishment and dispersal. If only one juniper species is susceptible rather than the whole genus *Juniperus*, the risks of introduction, establishment and distribution may be incorrectly calculated. If correct, this error raises serious questions regarding the integrity of other assessments within the draft IRA.

The name *Juniperus chinensis* should be substituted for the phrase “*Juniper* and *Sabina* spp.” (and variations) wherever it occurs. *J. chinensis* is one of the more commonly cultivated ornamental Junipers and there are many cultivated varieties and hybrids grown both in gardens and as bonsai worldwide, so it is possible that the host may be present in sufficient concentrations in the vicinity of orchards in China to represent a significant risk of providing inoculum to apples.

It is critical that the 2 km exclusion zone for Juniper species is enforced to ensure the risk of fruit infection is reduced to a minimum. This requirement must be enforced and verified in all regions from which fruit may be exported and the final IRA must indicate how this will be done.

### **Marssonina blotch - *Diplocarpon mali***

Although fruit infection is described as rare, high levels of inoculum can occur in orchards because of production of ascospores and conidia on over-wintered leaves especially following seasons with high levels of infection. Verma and Sharma (1999) described fruit infection as “not uncommon” in orchards with high levels of leaf infection.

The draft IRA states that since fruit lesions are obvious they should be detected and graded out. It does not mention the risk of transmission as symptomless fruit infections, although much is made of this risk for *Gymnosporangium yamadae* in justifying a rating of moderate. Thus the rating of low for risk of importation should be changed to moderate to be consistent with the *Gymnosporangium yamadae* assessment.

“The limited distribution of this fungus in China, the low potential for fruit infection and low potential of infected fruit passing through packing house processes support a risk rating for importation of ‘low’”. The above statement is flawed in that the potential for fruit infection is apparently higher than for *G. yamadae* (‘not uncommon’ vs. ‘rare’) and the potential of infected fruit passing through packing house processes does not take account of the risk of undetectable symptomless infections being present.

The statement that primary infection is initiated by ascospores is inaccurate. Verma and Sharma (1999) reported that overwintering conidia survived with 20% viability and could therefore be a source of new season’s primary infections. Symptomless infection of fruits immediately prior to harvest (which is necessary for fruits to be imported with symptomless infections) will only come from conidia released from infected leaves, rather than from ascospores which are only released from over-wintering leaves for 3-6 weeks around the time of bud-burst. The overall probability of entry of the fungus through infected fruit is underestimated at low and should be revised.

The industry needs to be confident that BA prepares IRA documents using the latest research and that it applies that research consistently. It seems clear that in this case neither of those conditions apply. Any final IRA document will not be complete until this particular issue has been thoroughly investigated and reported upon.

## European Canker - *Neonectria ditissima*

The Draft IRA should provide a reference for the change of name from *Neonectria galligena* to *N. ditissima* since the New Zealand Apple IRA referred to the fungus as *N. galligena* and the change is relatively recent and not widely known. The justification for the name change is provided by Castlebury et al. (2006) who found using molecular and morphological evidence that the two fungi were the same, and that *N. ditissima* was the older name and therefore the correct name. This indicates that BA's knowledge of this disease is out of date. Since European canker is a disease of major concern to the industry, it is imperative that it be given a high level of well-informed attention in the final IRA.

As Chinese apples are produced in many regions with varying climatic conditions, European canker cannot be dealt with in a single set of control measures for the whole country. European canker can be of no concern in some regions but a major threat in others. It is well known that in regions experiencing greater than 1000 mm of rainfall per year European canker is a high risk.

The final IRA must address the issue of European canker on a region-by-region basis. Area freedom must be a requirement with results that demonstrate that the disease is known not to exist.

## Pest risk management measures and phytosanitary procedures

### *Operational systems for maintenance and verification*

*Adoxophyes orana* (summer fruit tortrix moth), *Amphitetranychus viennensis* (hawthorn spider mite), *Carposina sasakii* (peach fruit borer), *Cenopalpus pulcher* (flat scarlet mite), *Diplocarpon mali* (marssonina blotch), *Euzophera pyriella* (pyralid moth), *Grapholita inopinata* (Manchurian fruit moth), *Gymnosporangium yamadae* (Japanese apple rust), *Monilinia fructigena* (apple brown rot), *Phenacoccus aceris* (apple mealybug), *Phyllosticta arbutifolia* (apple blotch), *Pseudococcus comstocki* (Comstock's mealybug), SBFS fungi (sooty blotch and flyspeck diseases) and *Spilonota albicana* (white fruit moth) were assessed to have an unrestricted risk estimate that exceeds Australia's ALOP.

Biosecurity Australia has proposed the systems approaches based on orchard control and surveillance, fruit bagging, pressurised air blasting of fruit and visual inspection to reduce the risk associated with all of these pests and diseases to meet Australia's ALOP. In addition, PFAs have been proposed as risk management measures for *Bactrocera dorsalis* (Oriental fruit fly) and *Neonectria ditissima* (European canker).

The adequacy and level of confidence in pest risk management measures will be of crucial importance to the apple and pear industries. APAL will need to have confidence that the systems put in place will protect the industry and to date consultation on operational policy for other import policy documents has been totally inadequate.

### ***Fruit fly Pest Free Areas (PFAs)***

The industry notes the release of the Biosecurity Australia report on the assessment of northern China's fruit fly pest free areas of Hebei, Shandong and Xinjiang. It is noted that the report recommends acceptance of these fruit fly PFAs by the Australian Government. As Oriental fruit fly is distributed throughout China and is a serious pest of apples, it is assumed that import policy could only be currently considered from these production areas. If this is so then the final IRA needs to make it perfectly clear that Australia will not be accepting apples from all regions of China but only from fruit fly free regions of Hebei, Shandong and Xinjiang.

It must be noted that Australia has been seeking Chinese endorsement of fruit fly PFAs since 2001 with no obvious progress to date. Recognition of Australian fruit fly PFAs will be a crucial risk management measure for host commodities of Queensland fruit fly currently seeking access into China. It would appear that if China cannot inform Australia of the conditions that would constitute fruit fly area freedom then they must also be having similar difficulties within their own country. Australia cannot, therefore, reside any confidence in this aspect of fruit fly management. If, however, China elucidates the conditions for fruit fly area freedom in Australia, then at least the same conditions and level of rigour must apply in China.

The industry requests that consideration be given to the requirement for mutual recognition of fruit fly PFAs within both countries.

### **Conclusion**

The industry remains concerned that a number of issues that were outlined in the response to the Issues Paper for Chinese Apples have not been adequately addressed within the Draft IRA. The industry remains committed to work with Australian quarantine authorities to ensure that the areas of concern that have been highlighted within this report are considered and incorporated into the Final IRA Report for Chinese Apples.

The Australian apple and pear industry will not consider any final IRA on Chinese apples to be complete unless the following issues have been thoroughly investigated and addressed.

1. A definitive description of exactly which areas, regions or provinces are being considered as part of the IRA or a province by province consideration of every risk item in the IRA.
2. A clear description of the point at which the volume of trade changes the risk profile and the measures that will be taken when that volume of trade has been reached.
3. A consideration and allowance for widely varying cultivation practices that must prevail across the entire area of China and every apple producing region within the country.



4. BA must recognise that not all apples in China are bagged and, for those that are, the bags are removed about 3 weeks prior to harvest. Any control or mitigation measure that relies on fruit being bagged must include verification processes that fruit has indeed been bagged.
5. A thorough justification for using existing policies that have not been used in any trade activity, or a re-evaluation of the existing policies under Chinese conditions or the use of other, proven, mitigation methods in place of unproved, untried policies.
6. A thorough analysis of the frequency of stalk severing by the weevil species considered in the Draft IRA and whether or not stalk severing will still occur in mature fruit (post bagging). If no such information is available the reassessment and revision upwards of the risk rating.
7. An upward revision of the risk profile for the more widely-spread weevil species *R. heros*.
8. Reconsideration and inclusion of the use of pheromone traps for *Carposina sasakii* and lepidoptra pests.
9. The removal of air blasting as a risk mitigation measure for mealybugs and mites and its replacement with a proven risk mitigation process.
10. A thorough analysis of US interceptions of *Carposina sasakii* and the use of cold treatment and methyl bromide fumigation as an effective control measure for this pest.
11. Report of a thorough investigation of the observations surrounding the claim that “shepherd’s crook” symptoms in apple trees are caused by cicadas.
12. A thorough review of Chinese quarantine conditions for the importation of apple nursery trees and budwood with strong risk mitigation methods required should those measures provide a lower level of protection to the Chinese industry than the Australian measures provide for the Australian industry (especially for fire blight and European canker).
13. China must meet the “known not to exist” standard for fire blight through regular and documented surveys of all apple orchards.
14. A thorough investigation of the situation surrounding Juniper hosts of Japanese apple rust.
15. Documentation of how the 2 km exclusion zone for Juniper species will be monitored and enforced.

16. The risk profile for *Diplocarpon mali* be re-examined including the risk of symptomless fruit infection, the risk of high levels of inoculum being present in orchards due to the production of ascospores and conidia on over-wintered leaves. Risk rating to be revised upwards to moderate.
17. The IRA indicates that BA has caught up with recent writings on European canker and uses the correct Latin name for this disease.
18. Evidence has been provided of active surveillance for European canker in Chinese orchards (“Know not to exist”).
19. Mitigation measures for European canker include two annual inspections of all orchards used to source export fruit including confirmation of the cause of any detected cankers.
20. The use of areas of low pest prevalence be abandoned as a risk mitigation measure for European canker.
21. Chinese authorities be required to elucidate the conditions that they would find acceptable to recognise Australia’s pest free area for fruit fly and that the same conditions, provided they meet Australia’s risk mitigation needs, apply to Chinese PFAs for the same pests.

## References

- AQIS (1998a). Final import risk analysis of the importation of fruit of ya pear (*Pyrus bretschneideri* Redh.) from the People's Republic of China (Hebei and Shandong Provinces). Australian Quarantine and Inspection Service, Canberra, Australia.
- AQIS (1998b). Final import risk analysis of the importation of fruit of the Fuji apple (*Malus pumila* Miller var. *domestica* Schneider) from Aomori Prefecture in Japan. Australian Quarantine and Inspection Service, Canberra, Australia.
- AQIS (1999). Final import risk analysis on the importation of fresh fruit of Korean pear (*Pyrus ussuriensis* var. *viridis* T. Lee) from the Republic of Korea. Australian Quarantine and Inspection Service, Canberra, Australia.
- Biosecurity Australia (2006). Final Import Risk Analysis Report for Apples from New Zealand. Biosecurity Australia, Canberra, Australia.
- Biosecurity Australia (2005). Final extension of policy for the importation of pears from the People's Republic of China. Biosecurity Australia, Canberra, Australia.
- CAB International (2008). Crop Protection Compendium (2008 edition). Wallingford, UK. <http://www.cabi.org.compendia>, Accessed: 2008. Cited in Draft Import Risk Analysis Report for Fresh Apple Fruit from the People's Republic of China
- Castlebury LA, Rossman AY and Hyten AS (2006). Canadian Journal of Botany 84: 1417-1433.
- EPPO/CABI, 1997. *Gymnosporangium yamadae*. In: Quarantine Pests for Europe (2nd edn). Wallingford, UK: CAB International.
- Jamieson LE, Whiting DC, Woolf AB, White A and McDonald RM (2000). Water-blasting avocados to remove leafroller eggs. New Zealand Plant Protection 53: 371-374.
- Kim DS and Lee J-H (2003). Oviposition model of *Carposina sasakii* (Lepidoptera: Carposinidae) Ecological Modelling 162: 145-153.
- Kim DS, Lee, JH and Yiem M-S. (2000). Spring emergence pattern of *Carposina sasakii* (Lepidoptera: Carposinidae) in apple orchards in Korea and its forecasting models based on degree-days. Environmental Entomology 29: 1188-1198.
- Kim DS, Lee JH and Yiem, M-S. (2001). Temperature-dependent development of *Carposina sasakii* (Lepidoptera: Carposinidae) and its stage emergence models. Environmental Entomology 30: 298-305.
- Teng (1996), Fungi of China. Mycotaxon Ltd.
- Vincent C, Hallman G, Panneton B and Fleurat-Lessard F (2003). Management of agricultural insects with physical control methods. Annual Review of Entomology 48: 261-281.

Verma LR and Sharma RC (1999). Diseases of Horticultural Crops. Indus Publishing Co. New Delhi.

Whiting DC, Hoy LE, Connolly PG and McDonald, RM (1998). Effects of high-pressure water jets on armoured scale insects and other contaminants of harvested kiwifruit. Proceedings of 51st New Zealand Plant Protection Conference: 211-215.

Wu BG, Liu E, Trachtenberg E & Beckman C (2007). The People's Republic of China. Fresh Deciduous Fruit. Annual 2007. <http://www.fas.usda.gov/gainfiles/200711/146292990.pdf> GAIN Report, CH7085. U.S. Embassy, Beijing, China.