Queensland Fruit & Vegetable Growers

# Submission to

# The Senate Rural and Regional Affairs and Transport Legislation Committee

# On the revised draft import risk analysis on apples from New Zealand

**22 April 2004**

## 1. INTRODUCTION

Queensland Fruit & Vegetable Growers (QFVG) believes the revised Import Risk Analysis (IRA) on Apples from New Zealand proposes recommendations that are inadequate and are based on a flawed risk matrix.

This submission is presented in support of the submission prepared by Apple and Pears Australia Limited (APAL). It is also submitted in support of our own members who make up the $50 million Queensland apple industry, which serves as a major provider, particularly in the Granite Belt, of incomes from jobs in primary industry service and input industries, processing industries, human services industries, and infrastructure development and services.

The submission focuses on the phytosanitary proposals for apple imports from New Zealand. It compares the proposal of the 2000 Draft Import Risk Assessment (IRA) with the proposals of the 2004 revised draft IRA and highlights the inconsistencies between the two documents and weaknesses in the latest proposed conditions for allowing the entry of New Zealand apples to Australia.

This submission also compares the proposed phytosanitary conditions for apple imports from New Zealand with the requirements with which Australian exporters must comply when sending products to other markets. The risk matrix is also considered and alternatives to the Biosecurity Australia (BA) risk matrix are discussed.

QFVG welcomes the opportunity provided by the Committee and provides the following comments.

## 2. BACKGROUND

Biosecurity Australia's handling of Import Risk Analysis on Apples from New Zealand has created a distrusting and antagonistic relationship between industry and the government.

The common thread of frustration is the perception that government has established an onerous and expensive process for assessing import quarantine risks but subsequently has ignored he science presented to it, while assuming that its' own science is definitive.

There are no clear rules set down about how risk assessments are to be carried out, nor are the risk matrices made public for peer review. Instead, industry must reverse engineer Biosecurity Australia's risk assessment to discover how each risk was quantified.

In addition to this, there are no policies, processes or recognition of what happens if an "acceptable risk" results in economic loss or environmental impact. This creates a situation where the government can make a ruling but then take no responsibility for the devastation that may result.

The expense of this process does not just fall upon Government or taxpayers. Usually, the coordination and funding of the scientific analysis needed to appeal an application for importation falls to industry.

This means funds that could be used to improve the industry through R&D or marketing must be diverted to fight threats, such as imported pests and diseases. Further, due to the length of the process—usually three to four years—an industry can be in limbo, waiting for the axe to fall. For the less united or resourced industries, it may not be possible to effectively appeal an IRA decision. This means an import may be approved because of an industry's ability to respond rather than a lack of scientific evidence.

The industry is prepared to work for a successful outcome because we believe the proposed controls will not be able in meeting Australia's acceptable level of protection against pest and disease incursions.

This will result in a decrease in quarantine safeguards which will mean an increase in the likelihood of pest and disease incursions, and the associated costs to industry, the community and the environment.

## 3. TERMS OF REFERENCE

The Senate Rural and Regional Affairs and Transport Legislation Committee is inquiring into the administration of Biosecurity Australia with particular reference to the assessment, methodology, conclusions and recommendations contained in the revised draft import risk assessment analysis on apples from New Zealand, issued by the Department of Agriculture, Fisheries and Forestry in February 2004.

## 4. ABOUT QFVG

Queensland Fruit & Vegetable Growers champions the interests of Queensland's 6500 commercial growers operating 3500 enterprises across the State. We provide leadership, representation, advice and support to growers to ensure their specific needs are met.

This encompasses the identification and management of key industry matters, political liaison, the development and coordination of industry development programs, training, the facilitation of research & development and marketing initiatives, and access to beneficial commercial opportunities. We are the only body of our kind in Australia, placing us in a unique position.

## 5. QUEENSLAND FRUIT & VEGETABLE GROWERS' POLICY POSITION

QFVG has strategic goals for a number of key policy areas covering, amongst other issues, the sustainable use of natural resources, industry development, economics, occupational health and safety, food safety and food quality.

The avoidance of pest of disease incursions is of vital importance to the viability of all rural industry. Australia's unique biodiversity and relatively disease-free status, along with our reputation as a supplier of fresh, high quality, clean produce must be maintained.

Effective sanitary and phytosanitary controls contribute towards preventing the importation of exotic pests and diseases that lead to crop losses as well as a loss of market access.

QFVG is committed to working with its partners, government and other stakeholders to ensure that biosecurity standards are maintained at the highest level, and that quarantine risk assessments are based on sound science and transparent decision making processes.

Governments must actively use their resources to assess import applications, prevent and combat pest and disease incursions as well as fund and coordinate eradication procedures.

These activities must leave the international community without doubt that Australia's quarantine and risk assessment regimes are developed and operated independently, and are based solely on sound scientific principles and analyses rather than industry protection.

## 6. PESTS AND DISEASES OF QUARANTINE CONCERN

The table below serves to illustrate the pests and diseases considered in the 2000 and 2004 IRAs. Below that is a discussion of the pests and diseases whose proposed protocols have changed between each document.

| 2000 Draft IRA | 2004 Revised Draft IRA |
|---|---|
| Ctenopseustis herana (leafrollers) | Ctenopseustis herana (leafrollers) |
| Ctenopseustis obliquana (leafrollers) | Ctenopseustis obliquana (leafrollers) |
| Planototrix excessana (leafrollers) | Planototrix excessana (leafrollers) |
| Planototrix octo (leafrollers) | Planototrix octo (leafrollers) |
| Tortricinae species (leafrollers) | Pyrgotis plagiatana (native leafroller) |
| Dasineura mali (apple leaf curling midge) | Dasineura mali (apple leaf curling midge) |
| Pseudococcidea species (mealybugs) | |
| Thrips obscuratus (thrips) | Thrips obscuratus (thrips) |
| Eriophyes mali (apple blister mite) | |
| Erwinia amylovora (fire blight) | Erwinia amylovora (fire blight) |
| Nectria galligena (fungus causing European canker) | Nectria galligena (fungus causing European canker) |
| | Graphania mutans (grey brown cutworm) |
| | Strathmopoda horticola (garden featherfoot) |
| | **For WA Only** |
| | Cydia pomonella (codling moth) |
| | Diaspidiotus ostreaeformis (oystershell scale) |
| | Grapholita molesta (oriental fruit moth) |
| | Planococcus mali (mealybugs) |
| | Pseudococcus calcceolariae (citrophilus mealybug) |
| | Panonychus ulmi (European red mite) |
| | Venturia Inaequalis (apple scab) |
| | Contaminants of apple fruit |
| | Arhopalus ferus (Burnt pine longhorn beetle) |
| | Conoderus exsul (click beetle) |
| | Nysius huttoni (wheat bug) |

**European Canker**

European Canker is a serious disease that can cause loss of 10% to 60% of fruit in an infected orchard. Severe infections can cause loss of trees. Between 10% and 100% of trees in the orchard may need to be replaced.

To ensure this disease is kept out of Australia, it is proposed in the IRA that the New Zealand Ministry of Agriculture and Forestry (MAFNZ) should assure Australia that orchards are symptom free however only suggests that surveillance may be the way to do this.

There is no determination in the IRA as to when or how often the inspections should take place and no insistence that it should occur at all. Regardless of this, "no external evidence of infection may be visible in the early stages of disease development. Young, developing cankers appear as small circular or elliptical areas of brown tissue" (http://plantpath.unl.edu/peartree/homer/disease.skp/Hort/Trees/PomeNectriaCnk.html ).

So, sourcing fruit from orchards found to be free of symptoms by visual inspection will not necessarily reduce the risk of including fruit from infected orchards.

So can pre-import inspections ensure that infected fruit is detected and not exported to Australia? The IRA states that infection can take place through the open calyx and in the stem end without showing lesions on the surface. Infections have also been observed to spread to the seed cavity (revised draft IRA p. 125) where presumably there are no surface symptoms.

Further, in varieties of lower sweetness – "cooking varieties" – infections can remain latent and develop only during storage over a period as long as three to seven months. The revised IRA proposes that fruit must be stored at 0-4°C for only 6 weeks. Apple varieties vary in their susceptibility to European canker but no variety is immune (revised draft IRA p. 125). The research that refers to "cooking varieties" is at least 30 years old and so is unlikely to take into account the changing sweetness profiles of modern apples.

The incidence of European canker in New Zealand appears to be on the rise. The research quoted in the revised draft IRA is all very recent, but still shows that since 1999 and 2000 the disease has spread. It is known to be currently present in areas that produce 41% of export apples.

In the case of European canker, the revised draft IRA is less strict than the previous draft IRA. It provides no better protection than would be the case if there were no protocols in place. Why has Biosecurity Australia downgraded the protocols for European canker from the 2000 draft IRA when they have quoted no new science in their assessment of it?

**Leaf Rollers**
In the case of leaf rollers, Biosecurity Australia has again lowered its standard from the 2000 draft to the 2004 revised draft. No new science has been quoted in the revised draft IRA, but the proposals for protecting Australia from this unwanted pest have still been reduced.

**Apple Leaf Curling Midge**
In the 2002 IRA Biosecurity Australia described ALCM larvae as being "small and not brightly coloured and may escape standard on-arrival inspection"(p 107). In the 2004 IRA, describes the same pest as "mature larvae are bright orange-red in colour and pupae brown in colour and thus are clearly visible" (p482). The revised draft IRA quotes no new science, nevertheless Biosecurity Australia has recommended a less stringent protocol in 2004 than in 2000.

**Thrips**
Although thrips are regarded by Biosecurity Australia as a pest of quarantine concern to the extent that the thrips are included in the detailed risk assessment section of the revised draft IRA, no protocols to assist in keeping the pest out of Australia are proposed. Again this is a change of position from protocols recommended in the 2000 IRA ie:

- Pre harvest orchard inspection - Orchard inspection required for ascertaining the presence of leaf rollers. AND
- Phytosanitary inspection - Detailed examination of the calyx of all fruit in sample including the use of knife or forceps if required. OR
- Enhanced on arrival inspection - As for phytosanitary inspection (above).

This is a significant reduction of the previously proposed inspection regime.

The revised draft IRA states that the concern regarding the thrips is that apple fruit will be contaminated by thrips moving from nearby stone fruit orchards (p.268), but there is no requirement to have a detection zone around Registered Export Blocks (REBs) that is free of stone fruit. This stone fruit free zone along with the inspection regime proposed in 2000 would be the minimum safeguard expected by Australian industry.

**Fire Blight**
The three major protocols proposed for fire blight (symptom free orchards, chlorine dipping and cool storage) will not reduce the risk to Australia and will not allow imported New Zealand apples to meet Australia's ALOP.

Additionally, there is a range of risk factors for which no protocol has been proposed. These include:

- Historical infection of orchards.
- Proximity of infected hosts to blocks from which exports are sourced.
- Cross contamination by machinery.
- Ability to remove symptoms pre inspection.
- Contamination of fruit during packing process.
- Ability of other pests to act as a vector during cool storage.
- Possibility of fruit from non-designated blocks being included in process.
- Climatic conditions pre harvest.

Below is presented a brief summary of the differences between the Draft Import Risk Assessment (2000) and the Revised Import Risk Assessment (2004).

This summary was compiled by Shane Hetherington of NSW Agriculture.

| Action | 2000 draft IRA | 2004 revised draft IRA |
|---|---|---|
| **Registered Export Blocks (REB) free from fire blight** | - REB trace back possible. List of blocks maintained by NZ but available to Australia.<br>- Three inspections per season (fruitlet, full bloom, two weeks before harvest) by NZ | - REB trace back possible. List of blocks maintained by NZ but available to Australia. Unique number to identify all orchards and growers.<br>- NZ will inspect fruit for export immediately before harvest<br>- Detection leads to suspension of that REB from the export program. |
| **Detection zones** | - 50 metre zone around an orchard containing no hosts except apples<br>- detection leads to no export for two seasons | Not included |
| **Disinfestation of harvesting bins** | - Bins to be used for export to Australia only<br>- Chlorine dip (100ppm), | Not included |

| | | |
|---|---|---|
| | pressure or steam clean<br>Trash removed | |
| **Disinfestation of fruit** | - Fruit dipped 1min 100ppm chlorine (pH 5.0 – 6.5; no sprays) | - Fruit dipped100ppm chlorine (pH 5.0 to 6.0) |
| **Sanitation of the packing line** | - Surfaces sanitised | - Packinghouse equipment and storage areas clean<br>- NZ to audit packinghouses |
| **Sorting, grading and packing procedures** | - Packinghouses registered<br>- Fruit free of trash<br>- New cartons | - Packinghouses registered<br>- Packinghouses to have ISO 9002 certification.<br>- Exports suspended from non-compliant packinghouses |
| **Packaging and labelling** | | - No plant trash<br>- No unprocessed packaging of plant origin<br>- Origin of fruit to be displayed on each carton |
| **Storage** | | - Fruit must be stored at 0-4°C for 6 weeks |
| | | - Packed cartons immediately loaded into a shipping container or vehicle and transported to the wharf. |
| **Inspection and certification** | - 600 fruit per REB per day inspected (= 'a lot')<br>- Rejected 'lots cannot be resubmitted<br>- 2 rejections and that REB withdrawn for that season. | - 600 fruit per REB per day inspected (= 'a lot')<br>- If pests/disease of 'quarantine concern' or trash found that consignment is rejected unless the lot can be traced back in which case only fruit from that REB is rejected.<br>- NZ to issue a phytosanitary certificate for each consignment with relevant information and declarations. |
| **Registration of exporters** | - Export packinghouses only source fruit from REBs | - Export packinghouses only source fruit from REBs |
| **Fruit security in storage** | - Fruit for Australia segregated from fruit for other markets | - Fruit for Australia segregated from fruit for other markets |
| **AQIS Audits** | - Australian inspectors visit NZ every year | - Random audits of the entire pathway by NZ and Australia. |
| **On-arrival inspection** | - Detection leads to suspension of trade<br>- Broken seals, incomplete documentation leads to rejection of the consignment | - Importer must have a valid import permit<br>- Shipment must have a phytosanitary certificate<br>- Incomplete documentation leads to destruction or re-export.<br>- 600 fruit per consignment inspected.<br>- Nil tolerance for quarantine pests, trash, immature or damaged fruit.<br>- Quarantine pests lead to fruit re-exported, destroyed, or treated to ensure the pest is no longer viable. |

The above table illustrates the degree to which requirements for the export of apples from New Zealand has been reduced. The information presented below indicates that the requirements are not only less than those proposed in the 2000 draft IRA but are very lax by international standards.

## 7. RISK REDUCTION

Growers expect that if New Zealand apples are imported into this country, the protocols that will be put into place will significantly reduce the risk of importing pests and diseases.

A flawed analysis of risk which leads to inadequate protocols can mean the end of the livelihoods of significant numbers of producers, employees and allied industries' workers, should the pests and diseases discussed above enter the country.

Neither reducing the stringency of the protocols without new science to support the reductions nor ignoring risk scenarios when proposing protocols will provide the protection that apple and pear growers and Australia's ALOP demands.

## 8. RISK MATRIX

In an earlier industry response submitted by APAL to the original draft IRA, a major issue was the unsuitability of the risk matrix that is used by Biosecurity Australia. The points made in that document are worth revisiting and are as follows:

- Despite very specific criticism in the report of the Senate Rural and Regional Affairs and Transport Legislation Committee inquiry titled '*An appropriate level of protection? The Importation of Salmon Products*' (June 2000) that a quantitative assessment of risk should be made in import risk analyses, Biosecurity Australia has perpetuated the use of a qualitative approach.
- The Nairn '*Australian Quarantine – a shared responsibility*' Quarantine Review Committee report examined the use of qualitative and quantitative import risk analyses and concluded that each had their advantages but that a Key Centre for quarantine-related risk analysis should be established to enhance Australia's standing in this field (this has not been done).
- While the likelihoods are stated to be qualitative, reference to Table 8 (page 42) shows that a quantitative approach lies behind the qualitative terms. This is inconsistent with a normal distribution of probabilities. The matrix rules for combining likelihoods makes the critical assumption that the events are independent, that is the likelihood of one event is entirely independent of the likelihood of a second.
- The problem is further exacerbated when current Draft IRA effectively draws on four (4) differing methodologies for determining the probability of entry, establishment and spread. The separate methodologies are:
  - AQIS IRA Process Handbook 1998
  - ISPM No. 2 *Guidelines for Pest Risk Analysis* (IPPC, 1996)
  - ISPM *draft* *Pest Risk Analysis for a Quarantine Pest* (IPPC, September 1999)
  - WG *draft* *Integrated Measures for Pest Risk Management –systems approaches* (July 2000)
- It is submitted that the inclusion within a likelihood matrix of an additional step described as 'spread' and then using the combined likelihood in a risk estimation matrix with 'economic consequence' is double counting.
- An arbitrary qualitative scale has been introduced which combines the direct and indirect consequences. The Draft IRA approach to economic consequences is limited by:

- a one-sided approach to consequence
- lack of quantification
- the use of an arbitrary scale
- lack of a time scale.

- The ISPM draft *Pest Risk Analysis for Quarantine Pests* (IPPC, September 1999) recommends that in assessing economic consequences 'wherever appropriate, quantitative data that will provide monetary values should be obtained.' It appears that no attempt has been made by Biosecurity Australia to quantify the economic consequences. Where these are likely to be profound it is inappropriate to use a qualitative scale. The estimation of consequences without an underlying and clearly understood monetary basis to confirm its rigour misleads the overall analysis.
- As no time scale is included it must be assumed that a category of consequence higher than 'extreme' would need to be included if a long-term change were to occur.
- There is no precedent for the 'risk estimation matrix' introduced in Table 9 (page 48) in any of the ISPMs, draft ISPMs.

Biosecurity Australia has also produced another risk matrix that is quite different and would give a different result if it were used. This risk matrix appears in documents produced to assist in creating industry biosecurity plans. Why has Biosecurity Australia created a different risk matrix?

Why would not the biosecurity plan matrix be used for imports? Why is the import matrix not suitable for biosecurity plans?

It is also worth noting that other countries use a different method of risk assessment altogether. The USA for example, uses a system of allocating points for each risk point. This means that risk factors accumulate from one issue to the next until a final score is achieved. This is an interesting contrast from the Biosecurity Australia multiplication model that can allow high risks to be substantially discounted by low risks.

We suggest that Biosecurity Australia carry out an international search of various methods of risk assessment and that the results be published along with Biosecurity Australia's reasoned position for using the current risk matrix instead of any of the other models available.

## 9. OTHER IMPORT PROTOCOLS

Bearing in mind that the economic consequences of importing fire blight will be extreme and that the unrestricted risk of importing fire blight is high, it would be reasonable to expect that the protocols suggested by Biosecurity Australia would be stringent. So how do they compare with the protocols demanded by other countries for Australian product?

**Australia to USA**

USA provides that a USDA inspector should come to Australia to inspect apples and pears at the time of packing for export.

Blocks must be registered and inspected. Fruit must be cold treated for fruit fly unless it comes from a fruit fly free area. To comply with the USA requirements, extensive paperwork is required – far more than other countries.

**Korea to USA**

In importing apples from Korea, the USA demands among other things that:

- The apples be grown in a certified orchard in an APHIS-approved export production area by growers registered with the Korean Ministry of Agriculture
- The export production area be surrounded by a 200- metre-wide buffer area
- The packhouse is prohibited from accepting fruit from any orchard not certified for export

(from 2000 protocols)

**Codling Moth Areas to Taiwan**

When apples produced in an area or country known to be a host of codling moth are exported to Taiwan an extensive workplan must be complied with. Among many other items the work plan includes:

- Details of the installation of codling moth trap placement and monitoring
- A buffer zone of 500 metres
- Orchards must be registered.
- Complete and adequate separation of fruit from registered blocks from fruit in non-registered blocks during storage
- Two months before harvest the exporting country must invite inspectors from Taiwan to inspect the production area.
- Annual certification of packing establishments
- Packing house must be fully insect-proofed.
- Apples must be sorted at least twice before packing
- When fruit is being transported, insect-proofing measures must be in place.
- At least 2% of the cartons in a given lot must be inspected and at least 50 apples from each of those cartons must be inspected.
- Finding of any coddling moth or other insect pest will result I the entire lot being rejected.
- An alternative to trapping and buffer zones is to fumigate the fruit.

**South Africa to Mexico**

When South African apples are exported to Mexico, the main requirement is for fruit to be cold sterilised or fumigated, however the work plan requires extensive inspections, verifications and paperwork for each part of the process (taking 17 pages todescribe). Inspection of the fruit require that at least one carton from each pallet is inspected and that 40 pieces of fruit from each opened carton be inspected.

**Australia (Tasmania) to Japan**

When Australian (Tasmanian) apples are exported to Japan apples must be residue tested prior to harvest. The fruit must be fumigated at temperatures that are borderline in causing damage to the apples.

Fumigation must take place in the presence of an official from Japan. After fumigation the fruit is inspected by the Japanese official who samples fruit from 2 cartons from each pallet (2 out of every 63 cartons or more than 3%). The fumigation must take place in a special quarantine area and the fruit must not again leave this area prior to export. The cost of fumigation, special cooling and the Japanese inspector are all met by the fruit growers.

**New Zealand to Australia**

When stone fruit and kiwifruit come from New Zealand to Australia, an AQIS inspector travels to New Zealand to carry out inspections. AQIS officers also travel to China to inspect pears bound for Australia.

**Australia (citrus) to Korea and Japan**

Both Korea and Japan insist that their own inspectors are present when fruit is cold sterilised for the removal of fruit fly. All processes are checked with great precision and any deviation from the process will result in the period of sterilisation being restarted or the fruit rejected.

For Korea all fruit must come from registered export blocks with paperwork provided and verified by AQIS. The paperwork is checked in exacting detail and any discrepancy can result in the fruit being returned to the grower.

The inspectors from each country stay in Australia for the entire exporting season - about six months. The cost of the inspectors is met by the fruit growers. The full cost can amount to $150,000 to $200,00 per country per year.

Once inspected, and treated the fruit must be kept entirely within an insect-proof environment until the shipping container is sealed. Adherence to the insect-proofing protocols is also checked in great detail by the inspectors. Maintaining this environment is a costly exercise.

The nature of the inspections is such that the program for Korea is under threat this year due to the high number of consignments rejected last year.

Information in this section provided through internet documents and interviews with Colin Repacholi the AQIS Export Supervisor for Victoria and Mark Hall, Managing Director of Valley Pack in the Goulburn Valley.

## 10. CONCLUSION

There exist major inconsistencies between the 2000 draft IRA and the revised draft, with areas of risk for fire blight not addressed by the revised draft IRA.

Industry does not believe that the risk matrix used by Biosecurity Australia is appropriate, or that the process used to make assessments of risk are transparent.

Biosecurity Australia uses at least two different risk matrices in different circumstances. This submission suggests that Biosecurity Australia should investigate the risk assessment procedures used in other countries.

Finally, this submission shows that the protocols suggested by Biosecurity Australia are much looser than many used internationally. If international standards are to prevail, and if Australia's unique biodiversity and relatively disease-free status, along with our reputation as a supplier of fresh, high quality, clean produce must be maintained, then the risk-reducing protocols suggested by Biosecurity Australia need to be much tighter.