

31st of March 2006

Technical and Administrative Services
Plant Biosecurity
Biosecurity Australia
GPO Box 858
Canberra ACT 2601

Submitted via email: plantbiosec@daff.gov.au

Dear Sir/Madam,

Re: Growcom submission on the proposed import of apples from New Zealand

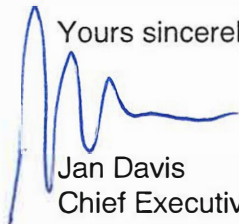
Growcom is the peak representative body for the fruit and vegetable growing industry in Queensland, supporting fruit and vegetable growing enterprises in rural and regional areas of the state. Growcom champions the interests of Queensland's 6,500 commercial growers operating 3,700 enterprises across the state. This sector provides over 25,000 jobs and contributes more than \$1.5 billion to the state economy each year.

Growcom support the APAL submission and will provide comments from a Queensland perspective. Apple growing in Queensland is concentrated in the Granite belt around Stanthorpe, with about 60 growers in a 10km radius of Applethorpe. Apple production was around 27,913 tonnes in 2004 (up from 24,570 tonnes in 2003) with over one million trees under cultivation and an annual production estimate in the range of \$40-60 million.

The major concern for Queensland's pome fruit growers in relation to importing apples from New Zealand is the risk of introducing fireblight. Studies of climate show the Granite Belt area is particularly favourable to the development of fireblight due to the warmer climate, which is the most favourable in Australia and much more so than most apple growing areas in the world. Knowing the impact of fireblight overseas, the apple producers in Queensland are very concerned about entry with fruit from New Zealand. It is very important to recognise that this is a major concern as fireblight would also lead to more potential infection periods than in other States and in New Zealand.

The wider implications of introduced pests and diseases, specifically fireblight, are that it extends beyond the field of production horticulture. Many common ornamental plant species are extremely susceptible to fireblight, such as those in gardens and parks. As a result, there are implications on a broader community scale which also need to be recognised.

Yours sincerely,



Jan Davis
Chief Executive Officer

Growcom

Submission on the Proposed Import of Apples from New Zealand

**In response to the Revised Draft Import Risk
Analysis report for Apples from New Zealand
Biosecurity Australia (2005)**

Prepared by
Michael Jefferies Consulting

March 2006

1. SUMMARY

Growcom is the peak representative body for the fruit and vegetable growing industry in Queensland, supporting thousands of fruit and vegetable growing enterprises in rural and regional Queensland. Growcom welcomes the opportunity to respond to the Revised Draft Import Risk Analysis report for Apples from New Zealand Biosecurity Australia (2005).

In response, Growcom submits that the proposed protocol that would, if adopted, allow the import of apple fruit from New Zealand does not address the risks sufficiently to meet the appropriate level of protection (ALOP). In particular current scientific evidence suggests that the ability for the fireblight organism to be carried in symptomless fruit from symptomless orchards means that the proposed control of orchard inspection in the season of production will not give the appropriate level of protection.

2. BACKGROUND TO THE QUEENSLAND INDUSTRY

The apple and pear growing in Queensland is concentrated in the Granite belt around Stanthorpe. There are some 60 growers with an average of 24 hectares, but up to 200 hectares per holding in an area 10 km radius of Applethorpe. Apple production was around 27,913 tonnes in 2004 (up from 24,570 tonnes in 2003) and pear production was around 724 tonnes (up from 687 tonnes in 2003). Over 1 million trees are under cultivation. Value of annual production is estimated in a range of \$40-60 million.

The Queensland industry has invested heavily in advanced cultivation techniques, hail netting, grading, packing facilities and drip reticulation systems. In addition a major investment is the installation of large capacity water harvesting facilities. The consequence of these investments has increased yields from 13.5 tonnes per hectare to 45 tonnes per hectare in the last 20 years.

The main varieties of apples grown in Queensland during the recent season were Delicious - Striped + Block Red (25% of total tree numbers), Galas (24%), Granny Smith (17%) and Cripps Pink (15%) – from which fruit may be sold using the trade mark name PINK LADY™. In order of production volumes the main varieties were Delicious - Striped + Block Red (30% of total production), Granny Smith (27%), Gala (18%) and Cripps Pink (11%) – from which fruit may be sold using the trade mark name PINK LADY™.

The main varieties making up recent tree plantings in Queensland were Galas (35% of all new plantings), Cripps Pink (22%) and Granny Smith (16%). While pear production is a small part of the industry, there are new plantings comprising about 30% of the pear trees in the district.

Studies of the climate show that this area is particularly favourable to the development of fireblight, the most favourable in Australia and much more so than most apple growing areas in the world. An unpublished study by J Heaton showed that environmental conditions in the Granite Belt - the major apple growing district of Queensland - would lead to more potential infection periods than in other States and in New Zealand. Knowing the impact of fireblight overseas, the apple producers in this State are very concerned about possible entry with fruit from New Zealand.

In addition, apart from being the earliest apple producing area in Australia it has a preponderance of varieties known to be susceptible to fireblight. The combination of cold but relatively short winters with mild summers may also favour a number of pest insect species that, elsewhere, would not have such an impact in production situations.

3. ISSUES

This submission supports comments on issues raised by the Australian Apple and Pear Industry submission and the Queensland State Department of Primary Industries submission and adds comments from the perspective of Queensland growers as stakeholders in this process.

Firstly it should be emphasized that Queensland growers support the stance taken by the APAL submission. This submission focuses on those issues of particular relevance to the industry in Queensland.

3.1 General Issues

The relationship between 'orchard' and 'block' is confused. The draft relies on the identity of an *orchard* free of symptoms of a disease, e.g. fireblight, as being sufficient to ensure the fruit from that orchard is disease free. However the draft operational plan allows for *orchards or orchard blocks* to be registered. It is presumed that, in effect, these are practically identical. A better approach would be to define more closely what are the acceptable parameters for a 'block', such as distance between blocks, absence of alternate hosts in and between 'blocks' and so on rather than that in the definitions. This would give more confidence that fruit would be less likely to come from 'blocks' not found to have infected trees but adjacent to 'blocks' known to have infected trees.

It is not clear whether the removal of alternate hosts within 100m of orchards is a requirement. (p50 RDIRA 2006b). If not why not.

The industry considers that all fruit for retail should be stickered to identify the country and source as is commonly done for Australian fruit going overseas. Bulk fruit should be carried in packaging similarly identified.

While the RDIRA allows for the import of bulk fruit there are grounds for requiring that such fruit should not be allowed into regional area packing sheds. Sorting and repacking of fruit on or after arrival should only be permitted in metropolitan areas as is the case for other plant material of quarantine concern. Fruit that is waste or has to be discarded on or after arrival should be disposed of in a landfill away from production areas where it can be covered by burying to ensure material cannot be carried away by insects or birds.

The requirement for pre-clearance inspection by AQIS officers is supported. However we note that few –if any- AQIS officers would have any experience of fireblight symptoms and emphasise that this is a crucial issue if the draft protocol for orchards to be cleared by inspection for symptoms alone as the draft protocol proposes.

There are serious inconsistencies in the draft operational procedures to be applied to ensure the components of the protocol for import are met. In the interests of transparency for the stakeholders this should be established before approval is given rather than be subject of a work program developed later. (p292 RDIRA 2006b).

3.2 Fireblight

The entry of fireblight is the most concerning to growers for the reasons given above, namely its potential to be particularly devastating to the local industry and hence the local social and economic base of the community.

The RDIRA 2006a says:-

The major entry, establishment and spread pathway identified for fire blight was the potential for fire blight bacteria to be present in the calyx of the fruit and for surface contamination to occur in picking and handling. Transfer of fire blight bacteria to host plants in Australia could occur by mechanical means or insect mediated transfer.

The proposed risk management measures for fire blight are:

- *Inspection of orchards will be undertaken at an inspection intensity that would, at a 95% confidence level, detect visual symptoms if shown by 1% of the trees. This inspection will take place between 4 to 7 weeks after flowering when conditions for fire blight disease development are likely to be optimal. The detection of any visual symptoms of fire blight will result in the suspension of the orchard/block for the season. This measure is intended to significantly reduce the likelihood that apples will carry fire blight bacteria in the calyx.*
- *the use of disinfection treatment, for example, chlorine, in the packing house to remove existing and prevent further surface contamination with fire blight bacteria.*

Also the RDIRA 2006b p 48 says

The potential for endophytic infection (bacteria occurring internally in the tissues) was also considered. If endophytic infection occurs early, such fruit would probably fall off or remain mummified on the tree. It is also possible that late infections may not express internal symptoms until after a period of cold storage. However, there is little evidence in the literature to support the occurrence of endophytic infection of symptomless mature apple fruit.

This approach appears to be deficient for several reasons

- The confusion of what is actually identified (orchard or block) by inspection as being free of symptoms of fireblight and its relationship to neighbouring 'blocks'.
- There is evidence that fireblight can get into and be carried within apples (*Azegami et al. 2004, 2005, 2006*) protected from the disinfection treatment proposed. This has several implications not covered by the draft protocol, for example post harvest infection of apples by trash, presence of fireblight protected from disinfection processes, a source of inoculum in discarded apples dispersed in the flesh.
- As pointed out in previous submissions it is extremely difficult to pack apples with no trash. The RDIRA does not handle this issue consistently.
- The RDIRA does not exclude orchards where fireblight has occurred in the recent past, where there will be a residuum of infection, and may not be displaying sufficient visible symptoms to be detected due to seasonal variations and thus excluded from the export chain.
- There is no definition of what is to be done to ensure the person or persons surveying can reliably detect fireblight symptoms. In the interests of transparency for the stakeholders this should be established before approval is given rather than be subject of a work program developed later.

3.3 European Canker

The RIRA 2006a says:-

The major entry, establishment and spread pathway identified for European canker was that imported apples would be infected or contaminated with the fungus without showing any symptoms followed by spore release in Australia infecting host plants. The proposed risk management measure is to only allow export from pest free places of production. Pest freedom would require an autumn survey to confirm freedom. Detection of European canker would result in suspension of exports in that orchard/block for the coming season.

Reinstatement would require eradication of the disease, confirmed by inspection.

The comments made under fireblight on inspection of orchards, the presence of trash and disposal of fruit from sorting and repacking on or after arrival apply to this disease also.

3.4 Apple Leafcurling Midge

The RIRA 2006a says:-

The major entry, establishment and spread pathway identified with apple leafcurling midge was that insects would enter Australia in cocoons and emerge at major distribution points (urban and orchard based centres). The proposed risk management measure is to inspect, in New Zealand, a 3000 apple random sample of all export lots and reject or treat all lots where insects are found. This will reduce the prevalence of the insect in imported fruit sufficiently to meet Australia's ALOP. An alternative option is treatment such as fumigation for all export lots.

The proposed inspection regime appears to address the risk. It may be necessary to request mandatory treatment for this pest as given as option 2 by the draft 2006b

3.5 Leafrollers

The RIRA 2006a says:-

The major entry, establishment and spread pathway identified with leafrollers was that the insects will be present in imported fruit as eggs or larvae. The proposed risk management measure if apples are to be imported is the inspection of 600-fruit random sample for each lot. If leafrollers are found, then the lot must be withdrawn or treated to kill the insects.

As the inspection for ALM is for 3000 fruit this covers the requirement for a 600 fruit sample.

4. CONCLUSIONS

The crucial issue for the Queensland Apple Growers is the effectiveness of the proposed controls to prevent the entry and establishment of Fireblight and European Canker. With the current concerns of specialist plant pathologists and the recent research information on the potential for fireblight to be present in mature apples it is considered that the RDIRA does not properly address the issues to allow for the import of apples from New Zealand.

5. ACKNOWLEDGEMENTS

This paper has been developed using the main APAL submission as a basis. Useful and helpful discussions were held with members of QDPI Animal and Plant Health Service and the apples growers of Queensland.

6. REFERENCES

Azegami, K et. al. 2004. *Invasion and colonization of mature apple fruit by Erwinia amylovera tagged with bioluminescence genes.* J Gen Plant Pathol (2004) 70:336-341.

Azegami, K et. al. 2005. *Infection of mature apple fruit with Erwinia amylovera deposited on pedicels and its survival in the fruit stored at low temperature.* J Gen Plant Pathol (2005) 71:296-301.

Azegami, K et. al. 2006. *Erwinia amylovera can pass through the abscission layer of fruit-bearing twigs and invade apple fruit during fruit maturation.* J Gen Plant Pathol (2006) 72:43-45.

Biosecurity Australia (2005), parts a, b and c. Revised draft import risk analysis report for apples from New Zealand. Biosecurity Australia, Canberra, Australia.

CDI Pinnacle Management. 2004. *Economic contribution of the Horticultural Industries to the Queensland and Australian Economies.* HG03039 CDI Pinnacle Management and Street Ryan & Associates, November 2004.