

## **Technical & Administrative Services**

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**I am an apple grower at Bilpin in NSW. Our orchard is 86 km from Flemington markets in Sydney. I have read your draft analysis and am devastated that you would countenance the import of New Zealand apples into Australia in light of your obligations under the Quarantine Act and Proclamation and in light particularly of the diseases fireblight (a disease which unlike apple scab, does not merely reduce saleable crop in a given year but devastates and kills whole orchards, particularly in warmer climates) and European canker, both diseases being endemic throughout many parts of the apple growing regions of New Zealand and not present in Australia at all.**

**I make the following points regarding your draft import risk analysis (NZ apples) and request that you do address them as serious criticism of your draft to be taken into account in writing the final report:**

[1] At p91 in Part B of the Draft import risk analysis, it is stated as follows:

“Replanting a hectare of apples in the Batlow region of NSW is estimated to cost at least \$10,000 (Commonwealth of Australia, 2001).

Additional costs would be incurred for modification of orchard management programs, including the use of chemicals, disinfestation of machinery, and regulatory enforcement of quarantine conditions.

Organic growers may be compelled to use streptomycin (in the absence of an effective alternative). This would result in these growers immediately losing their certification for growing organic apples and the premium prices associated with the sale of such products (Commonwealth of Australia, 2001).”

#### **COMMENT:**

**I strongly dispute the indication in the draft that the cost of replanting one hectare of apples after a fireblight attack would be in the order of \$10,000.**

**Because of the increase in flying fox numbers and because of hail we have, totally at our expense, been forced to erect total exclusion netting –ie, hail netting canopy and bird netting at the sides – total cost of about \$40,000 per hectare). Each tree is supported by star posts (about \$5.50 ea) and tied by plastic chain. Per hectare we have approximately 1800 trees – all premium varieties – buckeye gala, galaxy gala, red fuji, fierro fuji, and pink lady strains of ruby pink and rosy glow – all premium varieties and all susceptible to fireblight. Rootstocks used are all dwarf – M9 and Ottawa 3 – again all fireblight susceptible. Because we aim for the niche and early market and give a great deal of time to each tree, we receive from our agent \$50,000 net of commission and after packaging and other expenses, \$30,000 per hectare.**

**Bilpin is very near Sydney and attracts many tourists – day tours from Sydney do the Blue Mountains run, - ie Sydney, Blackheath, Mt Victoria, Bell, Mt Tomah Botanical gardens, Bilpin and back to Sydney. A great deal of imported fruit goes to the Sydney markets. Fireblight in Australia could well start in Bilpin.**

**If our orchard were to become infected, in order to remove trees, at least one side of the netting would need to be removed in order for a bulldozer to take trees out of the covered area. (Burning could not occur on site because of the hail netting. Plastic**

chain, starposts and irrigation sprinklers would need to be removed first. I estimate that removal would cost about \$5000.

To replant we would first have to acquire fireblight resistant rootstocks – but they are not available in Australia. They have mostly been developed in the USA – the Geneva series – P41 is the rootstock that would most likely replicate M9. It is still being trialled in the USA – How many years would it be before (a) it is released from the USA (b) the wood could be quarantined in Australia for viruses etc, (c) rootstock bed developed and built up in the nursery, (d) suitable varieties grafted onto the rootstocks and (e) then after at least a year of growth, made available to orchardists. I would suggest that it would be at least five years. After planting it would then take three years to get back to having a commercial crop.

By my estimation our loss – per hectare - during that period would be at least income of  $7 \times \$30,000 = \$210,000$ , plus the cost of 2000 replacement trees at about \$12 ea (rootstock and variety patented) = \$24,000 plus costs of removal, replacing the bird netting, labour costs of replanting (\$8000) – total = \$242,000.

In any case maybe it would be that we could no longer use the premium varieties of gala, fuji and pink lady because they are all fireblight susceptible – in which case our loss would be continuing. There would be no premium price for early less attractive varieties.

To reiterate, the notion in the draft that after a fireblight attack in an Australian orchard wiping out most the orchard, that the orchardist could simply and immediately replant at a cost of \$10,000 is absurd – as stated above, if fireblight came to Bilpin because Biosecurity granted import permits to countries with fireblight, the extent of harm to orchardists in Bilpin would be in the order of \$242,000 per hectare for premium bocks – plus of course, the heartbreak of pulling out trees which we have worked on for a number of years, the deprivation of fresh fruit to the Sydney markets (we pick one day and pack and send to Flemington markets the next) and loss of jobs to the many young local people who are employed to help pick fruit.

I would add that our climate is more akin to that in areas of orcharding in Italy and Michigan, USA where the warmer climates have proven to be a welcome host for fireblight, the disease thus able to move through orchards at great speed and killing trees within one season or even in a matter of months. New Zealand boasts of being able to control fireblight with antibiotic and copper sprays – that may well be so in the apple growing regions of New Zealand but far from the case where warmer climates are involved.

At p 91 the draft also refers to possible harm to organic growers. I would like to point out that like many other orchardists in Australia, we run our orchard on the basis of the IPM system (“integrated pest management” - a system of growing in Australia much more common than organic growing) – eg, my fruit fly control measures do not involve sprays. I personally walk the orchard once per week in season using a protein autolysate/malathion knapsack method for application to tree butts/fence posts etc. it attracts and kills female fruit fly – baits for males are also used. Fruit fly insecticides are therefore rarely used. Similarly, very low hazard sprays are used for codling moth – if the pest is detected in lures. For other diseases and pests, only low hazard sprays are used – sprays are usually only used if the pest is monitored for and found present – as for codling moth.

Like organic growers, if fireblight hit, we may be compelled to use streptomycin – so much for the IPM program (a program urged by the various agricultural departments over the last ten years or so and of real use to Australia in having an environmentally sustainable way of producing apples for Australians and promoting our clean/green image overseas).

[2] It is stated at p94 of Part B of the Draft import risk analysis:

## „Unrestricted risk

The model estimates the unrestricted annual risk by calculating the value for the annual probability of entry, establishment and spread and then combining this with the outcome of overall consequences, according to the risk estimation matrix in the method section. The unrestricted annual risk estimation for *E. amylovora* is shown in Table 23. Two estimates are given, based on a ‘very low’ proportion where P1 = Uniform ( $10^{-3}$ ,  $5 \times 10^{-2}$ ), and a high proportion where P1 = Uniform (0.7, 1), of imported apples being handled through orchard based wholesalers.

**Table 23 Unrestricted risk estimation for *E. amylovora***

**P1 Uniform (0.7, 1) P1 Uniform ( $10^{-3}$ ,  $5 \times 10^{-2}$ )**

**Overall probability of entry,  
establishment and spread<sup>11</sup>  
(median value)**

$5.8 \times 10^{-2}$  (Low)  $5.7 \times 10^{-2}$  (Low)

**Consequences** High High

**Unrestricted annual risk** Moderate Moderate

As indicated in Table 23 above, the overall unrestricted risk for *E. amylovora* varies slightly depending on the value of P1. Irrespective of the P1 value used, the unrestricted risk estimate exceeds Australia’s ALOP of ‘very low’; risk management is therefore required for this pest.”

**I would note that the following is the chief legislation under which Biosecurity is**

**empowered to act:** Clause 70 of the Quarantine Proclamation stipulates that the Director:

“(a) must consider the level of quarantine risk if the permit were granted; and (b) must consider whether, if the permit were granted, the imposition of conditions on it would be necessary to limit the level of quarantine risk to one that is acceptably low; and (c) may take into account anything else that he or she knows that is relevant.” Section 5D of the Quarantine Act states: “A reference in this Act to a level of quarantine risk is a reference to: (a) **the probability of:** (i) a disease or pest being introduced, established or spread in Australia ... and (ii) the disease or pest causing harm to human beings, animals, plants, other aspects of the environment, or economic activities; and (b) **the probable** extent of the harm.” Australia’s International obligations stem primarily from the World Trade Organization’s Agreement on the Application of Sanitary and Phytosanitary Measures which Agreement recognises the right of WTO Member countries to determine the level of sanitary and phytosanitary protection that they deem appropriate (a determination required to be based on scientific principles).

**Comment:** Thus relevant to permission to import is not just the probability of (i) entry (and spread etc) of the disease and (ii) harm, but also the probable (in the sense of likely or expected or forecast) extent of harm if entry and spread occurs. The first two considerations (5D(a) (i) and (ii)) dealing with probability are different from the third (5D(b)) particularly inasmuch that reducing risk by sanitary and phytosanitary protection measures under Clause 70(b) such as those suggested by Biosecurity in the draft dealing with inspections etc, can only make the risk of entry and the risk of harm less – but you can’t say that any of those measures will make the extent or the nature of the harm less. That is to say, dipping with chlorine and inspecting orchards or bins would have no impact on the *extent* of the harm fireblight would cause to NSW; nor could such condition per se restrict fireblight and somehow protect Victorian and Queensland orchards; nor could such conditions per se restrict the harm to orchardists and somehow protect workers and towns and related business in a

particular area. Insofar as Biosecurity believes that phytosanitary measures can reduce extent of harm (5D(b)) from its “high” status, I would suggest that they have made an error in construing the legislation. In any case I would suggest that there is nothing in the legislation which empowers Biosecurity, having determined that the extent of harm is high, to ameliorate this result by averaging it with the 5D(a)(i) and (ii) factors.

[3] I also think that in considering consequences Biosecurity has avoided addressing a very relevant factor – that if streptomycin was registered, what are the consequences for Australia of that registration? Biosecurity states at p,89 & ff

“**Environment – A...** One issue that was considered was the potential effect on the environment of chemicals that may be used to control fire blight should it establish. Copper and antibiotic sprays (mainly streptomycin) are used to control fire blight overseas. Copper sprays are already in use in Australia to control a range of pests of plants including apples. It is unlikely that the use of copper sprays for fire blight control would lead to any discernable increased impact on the environment compared to the current use of copper sprays.

Streptomycin or any other antibiotic sprays are not currently registered for the control of plant pests in Australia and therefore could not be used to control fire blight. Registration would require the evaluation of the environmental impact of the use of antibiotics. Significant issues that would need to be considered include the potential that resistance to the antibiotic may develop [streptomycin resistance has been found overseas (Thomson et al., 1993)] and the potential for residues in other products such as honey.”

**Comment:** The last paragraph dealing with streptomycin is in my opinion illogical and fails to address relevant matters which surely Biosecurity has a statutory duty to consider. Streptomycin is the possible lifeline for fireblight-affected orchards especially in warmer climates and in orchards where copper applications aren’t adequate. Biosecurity can’t say in one breath that it is not registered here and therefore the environmental impact of streptomycin use does not arise for its consideration whilst in the other breath saying that that impact would arise for the consideration of the registering authority if application for registration was made. In other words Biosecurity says that the use in Australia of the present main defence against fireblight and the consequences of that use if permitted, is consideration for another authority on another day. A consequence of fireblight is a high chance that streptomycin would have to be used and to be registered in Australia and therefore the impact of that likely use (the medical implications of its use and the potential for resistance both in apple orchards and wider applications, especially for humans) should fall for its consideration now. The alternate consequence would be that streptomycin would not be registered for use on apples in Australia because of medical and resistance reasons – from that the consequence may flow that fireblight would almost certainly not be controllable in parts of Australia and therefore the consequence of fireblight entering Australia would not just be *high harm* to apples trees and the economy and jobs etc, (as Biosecurity initially found it to be) but *extreme harm*.

[4] I thought the following comment on p.87 of Part B dealing with household and garden pests was totally unrealistic – it was not based on science but based on some notion of psychology and aptitude of home gardeners:

“Successful eradication of the disease would depend on the ability of householders to recognise it early and take timely action. If abnormal symptoms are detected in household plants, there is a reasonable chance that a diagnosis would be

undertaken, followed by an appropriate control measure.”

As a gardener, if my azalea dies in summer, I assume that I forgot to water it or that spider mites had overwhelmed it – I am hardly likely to run off to the NSW agricultural department to report the incident.

**[5] Despite what the Draft Report indicated, I understand that scientific studies show that trash is a high risk vector. In any event , the draft report seeks to overcome the problem of trash by an inspection regime.**

**We do all our own packing – single layer trays of high quality fruit – each apple is personally and individually placed in plastic tray liners – about 20 apples per tray. Yesterday, while engaged in that operation, I stopped to think how many bits of leaf I had inadvertently allowed to be placed in the tray. The tray I observed had a quarter of a leaf attached to two apples and a small portion of leaf had dropped into the plastic tray below one apple. I could only test the latter by lifting each apple above its allotted space. How could anybody inspecting a bin spot the trash.**

**I also sell figs to a greengrocer in Sydney. I take the figs to an area behind the shop where used apple boxes are assembled for crushing and disposal. I have noted that a good many of these boxes (three layer apple boxes) have dried leaves in them. On crushing, the dried leaves are dispersed in the Sydney suburb – some go to the Sydney tips in varying parts of Sydney and possibly Western Sydney.**

**All in all, it is therefore very hard to imagine that fruit coming into Australia in bins or boxes from New Zealand could possibly be guaranteed free of trash.**

**[6] It is clear that **European canker** is a devastating disease and that it is not present in Australia but is in New Zealand. It too is apparently very difficult to detect when fruit is inspected. Even apart from the fireblight issue, there should be a total exclusion of fruit from all areas that have this serious disease.**

**In conclusion**, I think that the extent of the harm that could be caused by the NZ plant diseases is too great to risk import grants and that none of the measures suggested to reduce the risk of entry (which itself is debateable, given the problem of trash) could have any impact at all on reducing **the extent of harm** that would be caused to Australian farmers, workers, businesses and consumers. The draft states that the present assessment of the extent of harm from fireblight in Australia is “high”. That status remains and is very far from the criterion of “acceptably low” referred to by the Minister in his second reading speech to the Quarantine Amendment Bill a few years ago.

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