

**AUSTRALIA'S QUARANTINE MESS:  
THE CASE OF NEW ZEALAND APPLES  
HOW THE ABSENCE OF A NATIONAL INTEREST TEST HAS  
STOOD IN THE WAY OF SENSIBLE POLICY**

**A POLICY DISCUSSION PAPER  
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## Australia's quarantine mess - the case of NZ apples

## EXECUTIVE SUMMARY

This paper looks in detail at Australian quarantine restrictions on New Zealand apple imports and draws on that case to identify much needed reforms to Australia's biosecurity policies and measures.

While Australia recently removed the absolute prohibition on apple imports from New Zealand, in practice they remain virtually banned. The severe import controls imposed have been subject to repeated complaints by New Zealand, and have not been resolved bilaterally as part of the long-standing Closer Economic Relations Agreement between the two countries. New Zealand's frustrations culminated in a formal complaint to the World Trade Organisation (WTO) in 2007. The WTO Panel report, issued to the parties in March 2010 and made public in August, ruled against Australia. This 'defeat' in Geneva has the same embarrassing implications for Australian quarantine policy as the WTO ruling against Australia's ban on imported uncooked salmon in the late 1990s. On 31 August 2010 Australia appealed the apple decision which, if rejected as we expect, will accentuate the embarrassment. Rather than appealing, it would have made more sense to use the adverse Panel ruling as an impetus for reform. Defending bad economic policies, in quarantine as in other areas, is a poor way of setting public policy. Win, lose or draw, the economic costs imposed by such measures on Australian national welfare cannot be undone by a WTO tribunal judgement.

The New Zealand apple quarantine story is remarkably bad from a public policy perspective. For one thing, Australia's investigation has been ridiculously slow. From the time New Zealand last applied for entry, it took Australia an extraordinary eight years to complete the risk analysis process and develop a technical workplan. Even then, with a Federal election looming, final government acceptance of the workplan encountered further delays. Another feature has been the repeated publication by the relevant Australian authorities of quarantine reports founded on erroneous scientific and economic reasoning which have exaggerated the disease risk. Finally and most importantly, the Australian analysis has been done on the presumption that it should not take account of the consumer benefits that would accrue from importing New Zealand apples – benefits big enough to guarantee that importing would be in Australia's national interest, even in the unlikely event that the local industry was seriously disrupted by disease. This paper rejects that view and argues that applying a genuine cost benefit framework would produce the best results for Australia and be entirely consistent with the trade objectives of the WTO.

The fact is New Zealand, which has to put up with fire blight, delivers fruit to its several export markets (some of which are fire blight free and require imports to meet strict hygiene standards) at half the domestic price of apples in Australia. Thus, since 2008 the Australian Department of Foreign Affairs and Trade (DFAT) has effectively wasted resources in Geneva vainly defending a quarantine regime for apples which Australia would be better off without and the waste has been compounded by Australia's decision on 31 August 2010 to appeal the WTO decision. Successfully defending the legal ability

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to maintain economically poor trade measures could hardly be seen as a victory in the national interest.

For Australia, the cost of contesting New Zealand's mid-2007 appeal to the WTO and, following that, appealing the adverse 2010 WTO ruling, has been significant. Budget figures for the cost are not yet available, but an idea of what has been involved can be gained from the list of those who attended one relatively small part of the process - the WTO Dispute Panel's Meeting in Geneva on 30 June and 1 July 2009 with the seven expert scientists retained by WTO. The meeting was attended by no fewer than 14 Australian officials, all but two Canberra-based.

Using the best available price, consumption and production information, this paper estimates the key economic magnitudes required for a cost benefit analysis of the effective apple import ban. Over the six years from 2001-02 to 2007-08, we estimate the financial transfer from Australian consumers to growers from effectively banning apple imports has totaled more than A\$2 billion in today's money, averaging annually about A\$250 million a year – corresponding to high nominal rates of assistance varying from 38% to 98%. Effective rates of assistance, a net measure of industry protection, ranged over this period from 73% to 192% as a result of quarantine import measures, with a rising trend. These nominal and effective rates for apple growers are many times the levels afforded other industries competing with apples for resources and consumer spending, and imply significant losses in national welfare. Most other industries, including agricultural activities, have had large reductions in assistance and now have generally low levels thanks largely to Australia's successful trade liberalisation policies over the past two decades. By contrast, apple growers have received preferential government treatment and have been sheltered by quarantine from import competition and market pressures to restructure.

For annual protection equivalent to A\$250 million a year to be economically sensible for Australia, the expected value of disease entry and damage would need to be about as big. A\$250 million is a high share of annual farm-gate apple sales. Given an average annual output of 300,000 tonnes over the last 10 years and wholesale prices averaging about A\$2,000 a tonne, the industry's annual gross revenue measured at that level is about A\$600 million. The A\$250 million provided by quarantine protection represents a large proportion of it – indeed probably several times more than local growers' and wholesalers' profit in a normal year. In the unlikely event of Australia-wide infection with the three diseases in question that Australia does not have but New Zealand has and which their growers must contend with, annual costs of coping with them might be as low as A\$3 million but certainly no more than A\$10 million. Also importantly, the probability of an incursion of any of the diseases is very low, especially if normal orchard hygiene practices were undertaken. Thus, from an Australian national welfare perspective, the quarantine regime does not pass even the most rudimentary cost benefit test.

In quarantine as in other policy areas, cost benefit principles are always relevant. Even the quest for disease-free status must pass such a test, as there would be no rationale in

maintaining a barrier as extreme as this if it were to impose more economic costs on Australia than benefits. Having the three diseases in question has not destroyed New Zealand's biological diversity nor prevented it from being one of the world's top apple exporters. The New Zealand industry employs sensible domestic risk management and other 'internationally-accredited' growing strategies to protect its own economic and other interests.

Australian quarantine arrangements effectively transfer the costs of an extreme disease control regime from growers to Australian consumers. Apart from imposing this domestic cost, by stubbornly applying a nil risk policy towards apple imports, Australia also damages its international reputation as a supporter of trade liberalisation.

Recent official quarantine reviews have been unduly limited. The most recent, the 'Beale' review of September 2008, for example, did not address the scientific shortcomings that are the subject of New Zealand's complaint, and ducked the crucial policy issue of whether Australia should have a national interest test.

The WTO ruling against Australia on New Zealand apple imports provides an opportunity not just for Australia to meet WTO requirements, but also for it to reform its quarantine policies so that Australian consumer interests are no longer overlooked. Our particular findings on apples are important, but the principal message of this paper is that the decision making system needs to be overhauled. What is required to guide all quarantine decisions is a fully-fledged cost benefit framework, whereby the interests of producers and consumers are considered on equal terms. Ensuring that consumers' interests are fully considered would require that entry from all potential exporters be investigated simultaneously instead of the current practice of reviewing each country sequentially and independently. Sources offering the greatest national welfare gain at least disease risk should be given priority entry. In the final sections of this paper, a possible method of doing this is described. There is little if any basis to argue as some have, that such reforms to Australia's SPS arrangements would run foul of its WTO obligations.

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## 1. INTRODUCTION

### 1.1 The issue

Apple imports have become a contentious trade issue for Australia, and a real public policy embarrassment. The latest incident follows a complaint New Zealand made in mid-2007 to the World Trade Organization (WTO), the 'court' in Geneva, that the quarantine barriers Australia imposes against New Zealand apples exceed what the scientific evidence indicates is required. The WTO Panel recently released its ruling against Australia.<sup>1</sup> It seems that Australia has not abided by the rules that it passionately urges others to meet. Most Australians would be unaware of this development.

What is the background to this?

Over the last two decades, New Zealand has requested several times that Australia allow entry of its apples, with each request prompting internal investigations in Australia by its quarantine officials. This history is summarised (in a similar form as was submitted by New Zealand to the WTO in mid-F) in Attachment 1. As indicated in Attachment 1, Australia's quarantine ban on imports of New Zealand apples in fact stems from the 1920s. Thus disagreement between the two countries on this matter goes back a long way.<sup>2</sup>

Always, for reasons given by Australia about the fear of pest and disease risks, the market has remained closed to New Zealand apples. While the latest Australian investigation culminated in the removal of the prohibition on such apple imports, the very tight conditions set instead for entry are essentially prohibitive, being too expensive for

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<sup>1</sup> The ruling was completed in March 2010 and released to the public in a report with several annexes totalling some 1000 pages on 9 August 2010. It can be viewed on the WTO website at: [http://www.wto.org/english/news\\_e/news10\\_e/367r\\_e.htm](http://www.wto.org/english/news_e/news10_e/367r_e.htm)

A related media release is at:

[http://www.wto.org/english/news\\_e/news10\\_e/hear\\_ds\\_06aug10\\_e.htm](http://www.wto.org/english/news_e/news10_e/hear_ds_06aug10_e.htm)

The main findings can be found in the 'Report of the Panel' (a pdf document coded WT/DS367/R of 9 August 2010) on:

- page 306: in relation to fire blight;
- page 379: in relation to European canker; and
- page 403: in relation to apple leaf curling midge (ALCM).

The 'Conclusions and Recommendations' section of the Report of the Panel states (on pages 547 and 548) that Australia's 16 SPS measures at issue regarding fire blight, European canker and ALCM plus what New Zealand had described as 'general measures' are inconsistent with one or more Articles of the WTO SPS Agreement. Its final sentence says that "The Panel recommends that the Dispute Settlement Body request Australia to bring the inconsistent above into conformity with its obligations under the SPS Agreement."

<sup>2</sup> The intensity of feeling on the New Zealand side has been colourfully expressed, for example, by John Knight (see Knight, John, 2005, 'Underarm bowling and Australia New Zealand Trade', Otago University, 18 July, which can be viewed at: <http://www.australianreview.net/digest/2005/07/knight.html>)

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New Zealand producers to meet to allow them to be competitive in Australia. Thus, in practice current arrangements still effectively ban New Zealand apples.

New Zealand, faced with continual investigative delays and the stringent conditions imposed in place of the initial ban, initiated a formal dispute at the WTO in 2007, which Australia has recently lost. The WTO Panel found that the import of mature symptomless apples, suggested by New Zealand, was an appropriate alternative for Australia's eight fire blight and four European canker measures and that the inspection of a 600-unit sample from each import lot, suggested by New Zealand, was an appropriate alternative for Australia's ALCM measure.

The ruling was publicly released on 9 August 2010. On 31 August Australia appealed the Panel ruling, which at the time of writing was pending.<sup>3</sup>

### 1.2 Australia's rules on apple imports

Because international trade falls within the federal jurisdiction, Australia's fruit import regime is governed by Commonwealth legislation. Nonetheless, many state policies (eg, water allocation, allowed pesticides, and hygiene regulations for fruit from interstate) may, by affecting fruit supply and demand, also have international trade effects, such as on imports.

The Commonwealth import law is the dominant legislation. It includes the usual Customs tariff. The Commonwealth's quarantine provisions are specified separately in the Quarantine Act 1908, which deals with pest and disease risks. However, no such clear legislative demarcation has been maintained in practice. For example, there have been cases when Customs legislation has been used for a quarantine purpose (eg, the Customs (Prohibited Imports) Act has been used to prohibit imports of seed wheat). Quarantine provisions are accompanied by detailed administrative guidelines set out in Ministerial Directions and departmental manuals. The Quarantine Inspection Service (AQIS) administers Australia's quarantine barriers. The legislation says that policy is to be set in accordance with the international WTO protocol, the Sanitary and Phytosanitary Agreement (SPS), which as a signatory Australia is obliged to base its quarantine decisions on, including ensuring that it conducts science based, transparent and objective investigations.

The main investigation is called an Import Risk Analysis (IRA) and in Australia is required whenever a party proposes to import plants or animals from a country without an assessed disease or pest status in those products. IRAs are prepared by Biosecurity Australia, a body that advises the Federal Minister for agriculture on policy. The standard IRA time limit of 24 months from announcement can be extended, and on occasions there have been inordinate delays. For New Zealand apples, the investigation after New

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<sup>3</sup> An appeal was lodged by Australia on 31 August 2010. The Appellate Body's report is to be circulated no later than 29 November 2010 – see: [http://www.wto.org/english/tratop\\_e/dispu\\_e/appellate\\_body\\_e.htm#current\\_appeals](http://www.wto.org/english/tratop_e/dispu_e/appellate_body_e.htm#current_appeals)

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Zealand's fourth access request in January 1999, was repeatedly extended to over eight years (Attachment 1).

Australian Most-Favoured-Nation (MFN) tariffs on imported apples are low, as they are with most products covered by the bilateral Closer Economic Relations Agreement (ANZCERTA or CER) between Australia and New Zealand. The CER tariff on apples is at or below the minimal MFN rate.<sup>4</sup> By contrast, quarantine provisions prohibit imports of apples into Australia, initially outright but now effectively in practice. Quarantine is excluded from the CER and from the two subsequent bilateral integration initiatives, the Mutual Recognition Agreement (MRA) and Trans-Tasman Mutual Recognition Arrangement (TTMRA). These exclusions largely reflect Australia's position which has been that quarantine is a multilateral issue that cannot be addressed bilaterally or regionally.

These exclusions of quarantine from the CER and its mutual recognition successors contrast with the arrangements that have facilitated liberalisation of two-way trade in other products. For example, the CER sensibly removed bilateral anti-dumping action by enabling each country's importers to access each others' competition law and to mount anti-competitive (eg, predatory pricing) cases against exporters. This probably reflected officials' recognition at the time that antidumping action is simply another form of protectionism that if removed bilaterally would make both parties better off.<sup>5</sup> For quarantine, however, it seems that the politics of reform was far more difficult.

Nevertheless, there is some patchy evidence that Australian and New Zealand negotiators would like to prevent quarantine from becoming a pointless bilateral trade barrier. The CER Protocol commits both countries to work towards harmonising quarantine standards and procedures, including adopting common inspection arrangements. However, the original Protocol group created to consider these improvements is moribund. Another group, which is supposed to look at simplifying the Protocol, has achieved little. On the positive side, both countries have successfully developed more general bilateral production and processing food standards. Australian imports of meat products (beef, sheep and deer from New Zealand, for example, do not require import permits if fit for human consumption). No quarantine certificates are needed to export these products (of Australian or New Zealand origin) in either direction.

Thus, bilateral trade in meat products is substantially less encumbered than in fruit and vegetables. The Australian Productivity Commission (PC) reviewed the bilateral mutual recognition arrangements between the two countries during 2008-09, the second time in

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<sup>4</sup> On 1 July 1990 under CER, to reiterate earlier statements of intent, the Protocol on Acceleration of Free Trade in Goods came into force, in which the two countries agreed that no tariffs or quantitative import restrictions would be applied on goods originating in the free trade area. A recent discussion of progress on bilateral tariff reduction can be found in a supplement to the PC's early-2009 review of CER rules of origin at:

<http://www.pc.gov.au/projects/study/roo/docs/finalreport/supplement1>

<sup>5</sup> This came about under CER at the time of the Protocol on Acceleration of Free Trade in Goods on 1 July 1990, and is implemented under Australian legislation in Customs Act 1901, Section 269TAAA.

five years.<sup>6</sup> The PC's report, presented to respective Ministers and published in February 2009, recommended no changes to bilateral quarantine arrangements. Indeed it seems unlikely that official responses to this review will take the opportunity to examine any politically sensitive areas. Plant quarantine seems destined to continue being treated as a world unto itself.

While regrettable at one level, it should be emphasised that Australian and New Zealand economic interests are unlikely to be best served bilaterally in any case. Both would be better off reforming their protection regimes, including quarantine, on a MFN basis than discriminating between trading partners. The greatest national gains are likely to come from applying non-discriminatory market access to all exporting countries. Ideally, both countries would apply these same access arrangements to all products. Non-discriminatory access by both source and product is a pillar of sound trade policy.

The ideal of non-discrimination means defects found in quarantine measures applied to one product from one country raise questions about the correctness of the measures applied to other products and other countries. As this paper discusses, Australia's regime on imported New Zealand apples has widespread implications.

## **2. AUSTRALIA'S LEGALISTIC APPROACH**

### **2.1 Flaws in the WTO dispute process**

Australia's handling of the WTO apples case with New Zealand demonstrates the significant pitfalls and dangers of relying on a legal approach to administer trade policies. Its approach in Geneva has mirrored the way the quarantine system is run at home.

Following the WTO Panel's formation in mid-2008 to examine the dispute, Australia's DFAT marshalled a spirited defence of the legality of Australia's quarantine measures on imported New Zealand apples. DFAT based its defense on legal considerations under relevant WTO rules, especially the SPS Agreement, focusing on WTO 'legalese' and highly technical legal points that the Panel had to sift through and analyze.

For Australia, the cost over two years of contesting New Zealand's appeal to the WTO and following that, of running Australia's appeal against the adverse WTO ruling, has been significant. Budget estimates of the cost are not yet available, but an idea of what has been involved can be gained from the list of those who attended one relatively small part of the process - the WTO Dispute Panel's Meeting in Geneva on 30 June and 1 July

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<sup>6</sup> See especially 'SCOPE OF MUTUAL RECOGNITION – GOODS' which is Chapter 8 of the PC's research report of early 2009 entitled Review of Mutual Recognition Schemes (<http://www.pc.gov.au/projects/study/mutualrecognition>)

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2009 with the seven expert scientists WTO had retained. The meeting was attended by no fewer than 14 Australian officials, all but two Canberra-based.<sup>7</sup> None were economists.

Of major concern for Australians is that nowhere did this legal defense of quarantine measures mention whether the measures were actually in Australia's economic interests, and thus, whether they were worth defending. Australia's defence was clearly not presaged on any national interest test or economic assessment of the measures, perhaps because officials feared the results. The failure to check whether the quarantine measures were worth defending is a major omission that has economically hurt Australia and its ordinary citizens by promoting bad trade policy. DFAT should have known that Biosecurity Australia's so-called IRA on New Zealand apple imports which is the basis of quarantine measures is not really what it is purported to be.

Undertaking such a national interest test would have been an obvious first step for DFAT to take in deciding whether Australia should defend its stringent quarantine measures. After all, it would be a hollow victory for Australia to 'win' the legal right to maintain these restraints on New Zealand apple imports or imports from other countries such as the US or China, only to realise later that preventing these imports reduced Australian national welfare. The legal defense in the WTO of bad quarantine or other trade measures would seem economically irrational. Besides promoting economic loss through continued resource misallocation and the penalty on Australian consumers caused by these measures, defending a contradictory measure would entail a costly waste of legal and other administrative resources. A far better approach if apple import controls hurt the economy would have been for Australia not to defend the case but instead to use the opportunity created by the WTO dispute to liberalise the apple trade.

This conundrum on quarantine has happened before, with perhaps the best known example being the Australian Government's embarrassing attempt in the late 1990s to defend its quarantine arrangements in a formal WTO dispute initiated by Canada on uncooked salmon (Appendix 2). This dispute followed informal complaints by New Zealand, the United States, Denmark and Norway on Australia's unduly tight quarantine restrictions over more than a decade. Australia, not unexpectedly, lost the dispute and was obliged to improve access rules on uncooked salmon. This helped halve Australian salmon prices, with consumption doubling, significantly benefiting consumers and the economy. Meanwhile the Australian salmon farming industry, concentrated among a few family businesses in southern Tasmania, did not disappear as the industry claimed at the time would happen due to greater import competition. It has adjusted its methods and product mix to become a successful producer and exporter to Asia of boutique salmon products. New Zealand is now the largest source of uncooked salmon for Australia.

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<sup>7</sup> The 14 representatives who were present are listed on page 3 of the transcript of proceedings of the Panel's meeting with the experts, in the pdf document coded WT/DS367/12 of 9 August 2010 which can be viewed at:  
[http://www.wto.org/english/news\\_e/news10\\_e/367r\\_e.htm](http://www.wto.org/english/news_e/news10_e/367r_e.htm)

Such cases of where a government defends import rules that hurt Australia and its consumers raise serious questions about Australian trade policy coherence.

Before returning to this fundamental issue, in the next few sections of this paper we will review in more detail the apples dispute to expose the severe limitations of adopting a legal framework to administer Australia's quarantine measures. The legal approach is shown to be flawed and worse to have delivered what are, by any economic yardstick, overly-restrictive import measures on New Zealand apples that cannot be justified on national interest grounds.

## **2.2 The legal framework**

Much of the legal argument examined in Geneva has rested on whether 'sufficient scientific evidence' exists that imported apples from New Zealand are likely to be a pathway for the entry, establishment or spread in Australia of fire blight, European canker and Apple Leaf Curling Midge (ALCM).

Article 2.2 of the SPS Agreement ignores the wider question of whether it is worthwhile for the country concerned to apply the measures. It states:

'Members shall ensure that any SPS measure is applied only to the extent necessary to protect, human, animal or plant life or health, is based on scientific principles and is not maintained without sufficient scientific evidence.'

In the 2002-03 US/Japan Apple case, the WTO Panel, supported by the Appellate Body, reviewed the scientific evidence and concluded unambiguously that there was not sufficient scientific evidence to establish, in natural conditions, the risks that (a) mature and symptomless apples can harbour endophytic bacteria (latent infection), or (b) the pathway would likely be completed between a discarded infested/infected apple in the exporting country (US) and a host plant in the importing country (Japan) so as to lead to the establishment and spread of fire blight.

The Panel in the US/Japan Implementation Case also stated:

'On the basis of the scientific evidence made available to us and the opinions of the experts, we conclude that the US has made a prima facie case that the compliance measure at issue is not supported by sufficient scientific evidence. Japan has not rebutted this prima facie case.

'This does not mean that no phytosanitary measure is justified. On the contrary, the United States claims to export mature, symptomless apples. To the extent that this constitutes a phytosanitary requirement, Japan would be entitled to verify that this is actually the case. We note that the need for verification that only mature, symptomless apples are exported has been confirmed by the experts.' (page 116).

Article 5.1 of the SPS Agreement reads:

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‘Members shall ensure that their SPS measures are based on an assessment, as appropriate to the circumstances, of the risk to human, animal or plant life or health, taking into account risk assessment techniques developed by the relevant international organisations.’

The WTO Panel and Appellate Body found Japan maintained phytosanitary measures not supported by the scientific evidence and hence not based on an appropriate assessment in the circumstances of the risk to plant life or health. Japan’s following quarantine measures on imported US apples for fire blight concerns were judged inconsistent with the SPS Agreement:

Requirements to

- Grow fruit in a designated fire blight-free orchard,
- Export orchards be free of plants infected with fire blight,
- The fire blight-free orchard be surrounded by a 10-meter buffer zone (or border zone) free of fire blight,
- Orchards and surrounding buffer zones be inspected annually at early fruitlet stage, and
- The inspected detection of a blighted tree in this area disqualifies the orchard;
- Harvested apples be soaked in a surface disinfection of sodium hypochlorite;
- The inside of the packing facility be disinfected by chlorine treatment;
- Fruit destined for Japan be kept separate post-harvest from other fruit;
- Certification of exported apples being treated post-harvest with chlorine by US officials, and that this be confirmed by Japanese officials; and
- Inspection of packing facilities by Japanese officials.

Australia’s quarantine measures on New Zealand apple imports include many of these ie:

- Sourced from areas free from fire blight disease symptoms;
- Orchards/blocks be inspected for fire blight and not eligible for supply if any fire blight found
- Orchards/blocks be suspended for the season if any evidence of pruning or other activities carried out before inspection;

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- Disinfection of fruit using a chlorine solution in the packing house;
- All grading and packing equipment be disinfected immediately before each Australian packing run; and
- Packing houses registered for export use only fruit from registered orchards.

The US/Japan apples case indicates that the only appropriate quarantine measures based on sufficient scientific evidence for controlling fire blight would be those that directly concerned with ensuring that New Zealand exports only mature and symptomless apples to Australia. The US/Japan case held these to be only:

- Certification that exported apples are mature and symptom less; and
- Japanese officials confirming certification by US officials that that apples are mature and symptomless..

Thus, Australia's legal defense of its quarantine measures and/or the scientific evidence on which Australia's IRA is based needed to miraculously lead the WTO Panel to a different conclusion than in the US/Japan case. It always seemed highly likely that the Panel would also find most of Australia's quarantine measures to be similarly inconsistent with the SPS Agreement.

Australian quarantine investigations for New Zealand apple imports also covered the threat of invasion by European canker and ALCM. The Australian IRA assessed the 'annual probability of entry, establishment and spread (PESS) to be 'low' for European canker and 'high' for ALCM, respectively, compared with 'very low' for fire blight (see below). It was possible that the Panel would assess the adequacy of the evidence for treating each of them differently.

Japan appealed in its case with the US to the Appellate Body, which also found in the US's favour early by upholding the Panel's decision in 2003. Japan initially responded by making minimal changes to its quarantine measures that it claimed complied with the WTO ruling.<sup>8</sup> However, following the US's successful challenge of these modest changes as being non-compliant, Japan eliminated most of its quarantine measures on imported US apples some two years later in 2005.

In particular, it removed the following measures:

- Designation of export orchards and orchard inspection;
- Buffer zone (border zone) requirements and buffer zone (border zone) inspection;
- Surface disinfection of fresh fruits;
- Chlorine disinfection of packing facilities; and
- Certification and confirmation of certification of surface disinfection.

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<sup>8</sup> Japan changed its quarantine measures on US apples to comply with the Panel decision by lowering the number of inspections from three to one; reducing the buffer zone (or border zone) from 500 to 10 meters; and eliminating the need to disinfect crates.



It still has:

- Export inspection;
- Maturity test of fresh fruits under certain conditions; and
- Certification and confirmation of certification that exported apples are free from fire blight disease.

The US Government believed the elimination of the restrictive fire blight protocol gave producers a new opportunity to export apples to a high-quality market, at significantly lower costs. It was estimated that over the long run Japanese apple imports would on average rise annually to US\$144 million, although this was considered likely to vary substantially due to seasonally fluctuating market conditions.<sup>9</sup>

### **3. THE ECONOMICS OF THE AUSTRALIAN CASE**

#### **3.1 The Australian industry's efficiency and assistance levels**

The ban and now effective prohibition on imported apples has sheltered the Australian apple industry from import competition on a quarantine pretext. The apple industry thus has a privileged anti-competitive position. Without foreign competition, the industry has survived but is still of questionable efficiency. It has contracted substantially since the 1970s and is no longer export oriented, selling almost all (at least 97%) domestically. While Australia exported substantial production in the 1970s on the back of preferential access to the UK under old Commonwealth trade preferences, exports suffered badly once these were eliminated. Major export markets for apples in 2006-07 were small, namely the United Kingdom, Indonesia, India, Chinese Taipei, Malaysia and Sri Lanka. This declining export performance is indicative of an inefficient industry that has increasingly relied on stringent quarantine measures to remain viable domestically.

Australian apple producers are far less efficient than those in New Zealand, which is internationally recognised as an efficient exporter (within the world's top 2). Partial productivity measures support this assessment, with the average yield per hectare in New Zealand being above 50 tonnes compared to only 17 tonnes in Australia, for example. Others (eg, Arthur 2006) who have looked at the data have reached similar conclusions.

Australian annual pear production averaged 147,000 tonnes over the last ten years.<sup>10</sup> Only about 3% is exported, mainly in 2006-07 to New Zealand, Canada, Indonesia, Malaysia, India and Singapore.<sup>11</sup> Pear production and efficiency, as with apples, has declined.

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<sup>9</sup> Calvin, Linda and Krissoff, Barry, 2005, 'Resolution of the U.S.- Japan Apple Dispute: New Opportunities for Trade' Outlook Report No. (FTS31801) 23 pp, October (see: <http://www.ers.usda.gov/publications/FTS/Oct05/fts31801/fts31801.pdf>)

US apple and pear exports to Japan remain insignificant, but rose substantially in value terms in 2006 from US\$16,000 and US\$8,000 respectively to US\$218,000 and US\$24,000 respectively. In 2007 they fell corresponding to US\$46,000 and US\$22,000. In 2008 they continued at about this level.

<sup>10</sup> ABS, '1999-2000 Agriculture', 7113.0, 4 October 2001 p83; ABS, '2002-2003 Agricultural Survey, Apples and Pears', 7121.0.55.002, 18 December 2007, Canberra, p4-5; ABS, '2006-2007 Agricultural Survey, Apples and Pears', 7121.0.55.002, 18 December 2007, Canberra, p4.

Both Australian pome fruit industries are heavily assisted by stringent quarantine restrictions on imports that enable higher Australian apple and pear prices than if imports from New Zealand and other countries were unrestricted. This costs the Australian economy and penalises consumers by transferring their income to apple and pear producers. Quarantine blocks Australian access to world supplies. Not surprisingly, Australia therefore has the second most expensive apples and pears in the world. Only Japan, where the pome fruit industries are also heavily protected by quarantine measures, has dearer apples. This explains Australia's relatively low apple and pear consumption per head.

Australian apple prices are well above the average price in New Zealand export markets.<sup>12</sup> From 2000-01 to 2006-07, official New Zealand statistics show its export prices were relatively stable and averaged, after including an estimate of the cost of delivery to Australian east coast ports, around A1,000 per tonne. By contrast over the same period, official figures show Australian wholesale apple prices averaged A\$2000 per tonne, fluctuating annually from A\$1,500 to A\$2,600. The empirical basis of these estimates and the implications for rates of protection are contained in Attachment 3 (page 66).

These estimates (which assume that New Zealand and others' exports to Australia following liberalisation would be sufficient to ultimately compete Australian prices down to world levels or that Australia would reform its quarantine controls to allow apple imports from other competitive world exporters, such as China) reveal Australian apple (and pear) growing is highly assisted by quarantine import restrictions (Box 1). From 2001/02 to 2007/08, effective rates of assistance (ie, assistance expressed as a percentage of the local industry's value added), ranged from 73% to 192%, and has been trending upwards. This has heavily cost Australian apple consumers through prices ranging from 38% to 98% higher. Over this 6 year period consumers have transferred to producers a total amount of more than A\$2 billion in today's money, averaging some A\$250 million annually. The large advantage this assistance gives to apple growers is highlighted when compared to assistance provided other activities, as regularly measured by the Productivity Commission (PC). Average effective rates for Australian manufacturing and agricultural sectors have been well below double digit levels for many years. Thus, while most Australian manufacturing and agricultural activities have had to face the economic challenges of reduced assistance and exposure to international competition all to the economy's and consumers' gain, apple growers have been selectively sheltered from import competition and Australia's trade liberalisation policies.<sup>13</sup>

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<sup>11</sup> ABS, '2006-07 International Trade Australia', 5465.0, Canberra.

<sup>12</sup> WTO, First Written Submission of Australia, p119.

<sup>13</sup> Productivity Commission, 2008, *Trade and Assistance Review 2006-07*, March [viewed at: <http://www.pc.gov.au/annualreports/trade-assistance/tar0607/tar0607.pdf>].

### **Box 1: Apple Assistance Estimates**

The assistance estimates used in this paper are based on standard partial equilibrium analysis used by the PC and others. Key to this is the standard proposition that without protection Australia could import as many apples as required while not affecting world prices. This is called the 'small country' assumption, and implies that Australia is such a small market and world supplier of apples, it is a price-taker internationally. The evidence suggests this truly reflects reality for apples. Apples are heavily traded internationally and Australia is a very small market and exporter.

The world price is used as the benchmark for assistance estimates for industries protected by import barriers. It is the cheapest price at which supplies could be imported. The assistance estimates presented in this paper use New Zealand export prices, adjusted to import parity (landed-duty-free prices) in Australia. Whether allowing only New Zealand apple imports would see sufficient import competition to drive Australian prices down to import parity is open to conjecture, and would depend on a number of factors such as the supply responses in growing apples in New Zealand to export to Australia and the extent to which New Zealand apple growers compete with each other to export to the more (at least initially) lucrative Australian market, including by diverting sales from other less profitable export markets. A large supply of imported apples may not be needed to competitively reduce prices to import parity, provided the Australian market is contestable to new exporters. Perhaps for a short while New Zealand growers may be able to coordinate exports to Australia and elsewhere to sufficiently restrict imports to not depress Australian apple prices, thereby securing higher export prices from sales to Australia than if they competed fiercely with each other. However, any such arrangement is likely to ultimately collapse, and perhaps quite quickly if there was further liberalisation of the Australian apple market.

For annual protection equivalent to A\$250 million a year to be economically sensible for Australia, the expected value of disease entry and damage would need to be about as big.<sup>14</sup> In practice, this magnitude of disease loss is almost unimaginable, given:

- This figure is a high share of farm-gate apple sales, and is perhaps 10 times greater than the entire Australian apple industry's profit in a normal year. Indeed, the value of assistance would probably be enough to either buy all existing orchards or to persuade all growers to leave the industry;
- The low probability that in the absence of stringent quarantine restrictions, fire blight or the other two diseases would enter Australia on imported New Zealand apples and that this probability would become almost zero if simple and inexpensive phytosanitary procedures were followed, such as in New Zealand and the US;
- In the unlikely event of Australia-wide infection, the costs of coping with the three diseases of concern that New Zealand growers manage effectively to ensure that their commercial interests are safeguarded (New Zealand's incidence of these diseases have not prevented it from becoming one of the world's most efficient producers and exporters) would not be that great, perhaps 2-3% of total growing costs or some A\$3 million annually. This is well short of A\$250 million;
- There is little reason to think that any disease outbreak would not be quickly contained before spreading to all apple regions, or that such containment would cost

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<sup>14</sup> In other words, the consumer transfer caused by the constraint on imports would need to match the expected damage associated with the risk being addressed. It is reasonable to assume that the transfers are indicative of their efficiency consequences.

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any more than small change, either annually or once-off. Quick containment of scab outbreaks in Western Australia illustrates how straightforward the process can be. Again, the real cases show the containment costs to be in the vicinity of A\$100,000 annually, well below A\$250 million.

Thus, to say the least, it is not obvious that maintaining the current stringent quarantine restrictions on apples is good trade policy for Australia. The indicative costs of existing quarantine measures to the Australian economy and consumers are too great to be ignored.

Abandoning existing policy would generate enough savings to Australian consumers and the economy generally by opening the Australian apple and pear markets to more efficient sources to pay for any potential disease risk cost many times over.

### **3.2 Australia's Import Risk Assessment (IRA)**

#### (a) Scope

Australia's IRA is fundamentally flawed because it does not take into account the potential savings to consumers and the economy generally in assessing the benefits from removing quarantine measures on New Zealand apple and pear imports (or from other sources). In the IRA, Biosecurity Australia assessed the risk probability (PEES) of imported apples and pears from New Zealand transmitting each of the three relevant diseases (fire blight, European canker and ALCM) to Australia. To this it applied an estimate of the consequences to Australia of this happening to determine an overall assessment of the 'unrestricted annual risk' (UAR). The higher the combination of PEES and the assessed consequences, which are assessed using a subjective rating, the larger the UAR. Different combinations exist, depending on the level of PEES and the extent of the consequences. If the UAR is assessed above 'very low' quarantine measures are advocated to manage the amount of risk so as to lower it to Australia's acceptable level of protection.

The IRA assessed the PEES for apples to be 'very low' for fire blight but obtained a 'low' UAR because the consequences were assessed to be 'high'. For European canker the PEES was assessed to be 'low' but since the consequences were assessed to be 'moderate', a 'low' UAR was assessed. For ALCM the PEES was assessed as 'high,' but because the consequences were assessed to be 'low' the UAR was also considered 'low'. Overestimating the downside consequences of Australia obtaining the disease by not including the two certainties that Australian consumers would enjoy savings and the economy generally would become more efficient from liberalising the apple and pear market, is a fallacious basis for determining quarantine measures.

#### (b) Assessment of consequences

The IRA's assessment of consequences is based on Australia's Quarantine Act 2008 that requires the likelihood of harm caused to humans, plants, other aspects of the environment, and the probable extent of the harm, to be taken into account, and the SPS Agreement that requires members consider the relevant economic factors, the potential

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damage in terms of loss of production or sales from contracting the disease, cost of control and eradication, and the relative cost-effectiveness of alternative approaches to limiting risk. However, assessments of the 'benefits or otherwise of trade in a given commodity, or the impact of import competition on industries or consumers in the import country' are excluded from the IRA, and are not a requirement of the SPS Agreement. Table 1 below re-produces the assessed consequences given in the IRA.

**Table 1**  
**Consequences of disease being transmitted to Australia**

| Disease         | Consequence                            | Impact score |
|-----------------|--|--------------|
| Fire blight     | Direct impact                          |              |
|                 | • plant life or health                 | F            |
|                 | • human life or health                 | A            |
|                 | • any other aspects of the environment | A            |
|                 | Indirect impact                        |              |
|                 | • control or eradication               | E            |
|                 | • domestic trade or industry           | E            |
|                 | • international trade                  | D            |
|                 | • environment                          | A            |
|                 | • communities                          | D            |
| European canker | Direct impact                          |              |
|                 | • plant life or health                 | E            |
|                 | • human life or health                 | A            |
|                 | • any other aspects of the environment | D            |
|                 | Indirect impact                        |              |
|                 | • control or eradication               | D            |
|                 | • domestic trade or industry           | D            |
|                 | • international trade                  | B            |
|                 | • environment                          | C            |
|                 | • communities                          | C            |
| ALM             | Direct impact                          |              |
|                 | • plant life or health                 | D            |
|                 | • human life or health                 | A            |
|                 | • any other aspects of the environment | A            |
|                 | Indirect impact                        |              |
|                 | • control or eradication               | D            |
|                 | • domestic trade or industry           | D            |
|                 | • international trade                  | D            |
|                 | • environment                          | B            |
|                 | • communities                          | B            |

*Rankings:* A = unlikely to be discernible at the national, regional, district and local levels; B = unlikely to be discernible except at the local level where it is assessed to be minor; C = unlikely to be discernible at the national and regional level, minor at the district level and significant at the local level; D = unlikely to be discernible at the national level, minor at the regional level, significant at the district level and highly significant at the local level; E = minor at the national level, significant at the regional level and highly significant at both the district and local levels; F = significant at the national level and highly significant at the other three levels; G = highly significant at all four levels.

The assessed indirect impacts appear to be well and truly overstated since no account is taken of the economic advantages to Australian consumers and the economy of letting New Zealand apples compete in Australia. In other words, they incorporate the costs of having a possible outbreak without taking into account the economic benefits of apple imports. This major omission severely discredits the IRA and its approach economically. At some A\$250 million annually on apples alone, these benefits clearly swamp the size of the assessed financial costs to Australia of having a disease outbreak, as is obvious from examining the individual components.

(c) Control and eradication

Fire blight is given a rating of 'E' and the other two diseases a rating of 'D', indicating that the impact is unlikely to be discernible at the national level and minor at the regional level, but highly significant at both the district and local level for the latter two diseases and significant at the district and highly significant at the local level for fire blight.

The IRA concludes that in the event of a fire blight outbreak, 'industry and the Australian and state Governments would incur substantial costs, associated with losses of production and trade restrictions, regulatory enforcement and implementation of the contingency plan (control/eradication and surveillance/monitoring)'. Its 'E' rating seems largely based on two scenarios of an outbreak of fire blight in the Goulburn Valley. One involved a predicted loss of A\$260 million from a 30% yield loss with the disease eradicated in five years, and the other a predicted loss of A\$870 million with the disease uncontrolled that resulted in a 20% and 50% cut in apple and production, respectively. When these consequences are compared with the real consequences in New Zealand, the ludicrous exaggeration of risk outlined in the IRA becomes obvious. In the past 25 years in New Zealand the very worst year for fire blight (1988) we are told the disease had a A\$10 million impact on exports for the NZ industry.

The IRA gave no financial costs for eradicating European canker or ALCM. For European canker it concluded simply that it is 'difficult and expensive to eradicate. General control includes fungicide sprays, paints applied to pruning cuts, cultural control, improving host plant resistance, and the prevention of fruit rot. Implementing these measures would require a multifaceted and costly approach.' For ALCM, the IRA stated that eradication and control 'may involve an increase in the use of insecticides because of difficulties involved in estimating optimum times for insecticide application; disruption to integrated pest management programs because of the need to re-introduce or increase the use of organophosphate insecticides; increase in control measures and impacts on existing production practices; consequent increases in costs of production; and increased costs for crop monitoring and consultative advice to producers.'

Separate information obtained indicates that only modest costs would be required to control the spread of these two diseases should an outbreak occur. Further, it seems New Zealand growers only take control measures for the ALCM pest on young trees.

(d) International trade

The IRA assigned fire blight a 'D' rating because it was considered unlikely to be discernible at the national level, minor at the regional level but significant at the district level and highly significant at the local level. This rating seems to have been heavily based on the view that a fire blight outbreak would cause lost Australian exports; figures of A\$25 million in 1997, or a total loss of A\$183 million from 1997-2002, were quoted. Given recent dwindling exports, these figures are an exaggerated portrayal of the current situation, but even so are relatively small compared with the costs of the current arrangements to Australian consumers and the economy. Thus, the basis of the IRA's claimed export losses is unclear, especially when it concedes that 'apples and pears are

exported to premium markets in the UK and European countries, and that these markets do not presently impose restrictions on imports from countries with fire blight’.

The doubtful nature of the IRA’s claim of lost Australian exports from a disease outbreak is evidenced by international trade developments in fresh pome fruits. While Australian exports have dwindled, world trade in fresh pome fruits has expanded rapidly, with China now the world’s main exporter of apples and Russia a major importer. This expansion is occurring regardless of the three diseases named in the IRA. New Zealand, with all three diseases, continues to efficiently export apples and pears. Its growers obviously have been able to manage the diseases in question and having them has certainly not harmed their exporting interests. Of the world’s top 10 apple exporters, seven (Italy, France, USA, Poland, the Netherlands, Belgium, and New Zealand) have the three diseases while Chile, China and Argentine are fire blight free (Chile has European canker and ALCM).<sup>15</sup> Nine (Russia, Germany, UK, the Netherlands, Spain, Belgium, US, France, and Canada) of the top 10 importers have the three diseases. Mexico’s status on the three diseases remains unclear.

For European canker the IRA assigned a rating of ‘B’ ie, unlikely to be discernible except at the local level where it was assessed to be minor. It acknowledged that the major Australian apple export markets do not restrict imports from diseased countries, either because climatic conditions make them disease-free or because, as in the case of Japan and UK, importing countries have the disease. The IRA also acknowledged that New Zealand exports apples globally, including to disease-free countries.

For ALCM, the IRA assigned rating was ‘D’, ie, unlikely to be discernible at the national level, minor at the regional level, but significant at the district level and highly significant at the local level. This was based on an assessment of the risk that Australian trading partners ‘may’ reject its apple exports if the disease became well established, without giving any details or quantification on why to expect the unchecked spread of the disease and which markets might be closed.

As indicated, the IRA has rated too highly the international trade impacts of fire blight and ALCM. The likelihood of markets being closed to Australian exports is slim. Many disease-free and diseased markets maintain no or minimal restrictions. This applies to most if not all of Australia’s export markets, and to most potential markets.

(e) Domestic trade

For fire blight the rating given was ‘E’ ie, minor at the national level, significant at the regional level and highly significant at both the district and local levels. This seems to be based on a quoted 1989 study that a fire blight outbreak would reduce the supply of fresh apples in both export and domestic markets by at least 50%. The IRA also predicts that reduced apple supplies by 50% may lower ‘supplies to the juicing sector’ by 30-40%, without recognising that imports could replace these supplies. Given New Zealand’s success in managing the disease, this assessed level of impact seems wildly exaggerated.

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<sup>15</sup> The status of China and Argentine for canker and ALCM is unclear.

Also, the IRA contains an unduly dramatic and needlessly pessimistic assessment of the impact that any cuts in pome fruit production would have on district, regional and local economies. For example, the IRA refers gloomily to threats to the:

‘... viability of several other sectors associated with pome fruit production e.g. packing houses, transport operators, packaging suppliers, repairers of agricultural equipment, agricultural suppliers, the banking and finance sector, and retail industries in general that would be affected. The transport sector is estimated to generate turnover of \$471 million in the Goulburn Valley. This represents 1050 jobs, or around 4.6% of local employment. The freight industry’s value is estimated at \$218 million, representing around 500 jobs. Transport operators in the Goulburn Valley spend around \$33.4 million annually, of which 75% is spent locally. Each year, trucks to the value of \$52 million are purchased locally. The value of interactions with the banking and finance sector in the Goulburn Valley is around \$3.4 million, and around \$21 million from this region’s business services sector, annually. Fertilisers and chemicals constitute 10% of total grower costs for pome fruit production in the Goulburn Valley. It is estimated that growers purchase \$7-8 million worth of sprayers. Based on an assumed 40% reduction in pome fruit production, this region would be expected to lose between \$3-4 million annually.’

It is doubtful that these industries’ linkages with pome fruit production were ever as strong as the IRA portrays, and certainly the description does not match today’s reality. The Goulburn Valley produces a wide range of other products, and its economic activity today is less concentrated on fruit production, including of apples and pears, than in the past 50 years. Dairying increasingly dominates the Valley’s agricultural output.

The IRA also does not acknowledge the extra business some input suppliers would do if fire blight occurred. Although only a minor omission, failure to even mention it is symptomatic of the biased portrayal given of the impact.

European canker received a rating of ‘D’, ie, unlikely to be discernible at the national level, minor at the regional level, but significant at the district level and highly significant at the local level. This was based on the view that ‘detection of the disease in one state could result in the application of quarantine restrictions by other states on fruit and planting material. This could have a highly significant impact locally and significant consequences across a district, particularly for nurseries involved in propagation of planting stock.’ A cost estimate of A\$3 million was given, for example, that might be imposed on the Victorian nursery industry if trade restrictions were placed on movement of nursery stock. Again this is an unduly gloomy prediction. Victoria’s nursery industry is concentrated in the peri-urban Melbourne area where real estate values are high and alternative land uses abound. Also, even to the extent that Victorian nurseries were harmed, other regional nurseries would presumably benefit from increased business. Thus, the accuracy and relevance of the alarm being sounded is unclear.

ALCM also was given a ‘D’ rating based on a similar assessment that the presence of ALCM on a commercial apple crop ‘could result in trade restrictions in the sale or



movement of fruit within a district or region or between states'. The IRA also refers to consumer well-being, mentioning the likelihood of 'fruit skins being distorted by bumps; and consumer expectations and aesthetic considerations ranging from the acceptance of fruit that is slightly affected right through to outright rejection of imperfect fruit'. Of course, there is no reference to consumer gains through lower fruit prices from allowing imports.

#### **4. OVERALL ASSESSMENT OF INDIRECT EFFECTS AND THE IRA**

##### **4.1 General shortcomings of the IRA approach**

The IRA's assessments of indirect trade impacts (domestic and world), costs of disease control, and of lost production are totally flawed and lack economic credibility.

First, even where qualified, they are dubiously based and are almost certainly exaggerated estimates of cost impacts should the disease occur from allowing entry of New Zealand apples. Even if IRA's figures are accepted at face value, the assessed cost magnitudes are always tiny relative to the economic costs imposed on Australian consumers and the economy generally by the quarantine restrictions, ie, compared to the consumer savings of some A\$250 million annually which it seems would be enjoyed if the apple trade were liberalised.

Second, in some cases the assessed impacts are not estimated, or if they are, they are not properly qualified. The IRA's failure to estimate some impacts (eg, the positive effects of disease control on some businesses) may reflect non-disclosed (yet untested) assessments that they would be trivial. Qualifications on some estimates are also unduly brief. These omissions create in the report an exaggerated impression of the import risk.

Third, in regard to domestic trade, incorrect inclusion of the indirect effects on local, district and regional economies and associated industries, and the resulting exaggeration is big enough to have a major bearing on the results. Since for the most part second-round indirect changes would always offset first-round indirect changes as growers and other affected economic agents adjusted to new circumstances, the IRA's treatment of first-round regional effects as net costs is wrong. From a national interest standpoint, the IRA report thus overplays the regional issue. Using these regional impacts as a criterion to judge quarantine controls is no more justified with quarantine than for judging other trade policy measures. Trade policy should be assessed with the overall economic welfare of all Australians in mind and not be biased towards any producer or regional interests over others, or over those of consumers.

For these reasons, the current IRA process is an inadequate basis for administering Australian quarantine policy. As an economic assessment, it is fundamentally flawed, most particularly for not including the annual average costs of A\$250 million that Australian apple consumers pay to growers through higher prices, and the associated efficiency costs to the economy. In part, this stems from basic weaknesses in the SPS Agreement, which does not require the IRA to take into account these effects (but does not prevent a country from doing so). Even within its own flawed paradigm, the

Australian IRA approach incorrectly applies the PEES to the estimated 'consequences' to arrive at a IRA on which to decide whether risk management measures are needed. If the consequences of a disease outbreak are assessed to be 'low' (as is the case with each of the three diseases named) it is unclear why it needs to be linked to the PEES to determine the IRA as originally stated. If consequences are 'low', the probability of an outbreak from imports (or domestic production) matters little.

## 4.2 Previous studies

Australian economists have often explained these and related weaknesses in the IRA approach. For example soon after publishing a 1990 cost benefit study of likely fire blight costs the Australian Bureau of Agricultural and Resource Economics (ABARE) produced a second study explaining the wider application of cost benefit principles, ie, of an assessment that would cover both consumer and producer impacts.<sup>16</sup> Again, nearly twenty years later, in 2008, an Australian CSIRO economist David Cook published a detailed explanation of what is required to regularise the economic assessment of quarantine issues.<sup>17</sup> It showed how a national interest test ought to be applied to quarantine decisions, and provided worked examples of these required calculations for fruit. These studies are not isolated examples. The past decade has seen a rise in the economic policy literature in Australia and overseas addressing the quarantine decision-making anomaly. Some economists interested in quarantine protection have seen Australia's extreme import restrictions on New Zealand apples as illustrating much of what is wrong with the SPS framework – as a case where the administrative process is considered so obviously wrong that it can be 'safely' criticised.

Arthur presented such an empirical study to the Annual Conference of the Australian Agricultural and Resource Economics Society in Sydney in February 2006.<sup>18</sup> It adopted a similar methodology as Anderson and James 1998.<sup>19</sup> He showed that apple imports from New Zealand would substantially benefit Australia economically across a wide range of assumptions due to large consumer gains.<sup>20</sup> Market liberalisation was found to be positive for Australia irrespective of the disease risk. Even with open trade and the worst possible

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<sup>16</sup> Hinchy, M and Fisher B, 1990, 'A cost-benefit analysis of quarantine regulations to prevent the introduction of fire blight into Australia', report to the Australian Quarantine and Inspection Service, ABARE, Canberra, and Hinchy, M and Fisher, B, 1991, 'A Cost-Benefit Analysis of Quarantine', ABARE, Canberra.

<sup>17</sup> Cook, David C, 2008, 'Benefit cost analysis of an import access request' *Food Policy*, 33, pp 277-285.

<sup>18</sup> Arthur, M, 2006, 'Economic Analysis of Quarantine: An Economic Analysis of Australia's Ban on New Zealand Apples.' Presented at Australian Agricultural and Resource Economics Society 50th Annual Conference, Sydney 2006.

<sup>19</sup> Anderson K and James S, 1998, 'On the need for a more economic assessment of quarantine policies' *Australian Journal of Agricultural and Resource Economics*, vol 42, pp 425-444.

<sup>20</sup> Arthur adopted, as we do in this paper, the standard perfect substitutability and 'small country' assumptions of international trade analysis - in this case, that New Zealand and Australian apples are perfect substitutes and thus would sell for the same world price, and thus that the volume of Australian imports (and exports) would be too small to affect world prices. The local industry is also assumed to be risk neutral, as is normal practice, as is no technology changes and no price or disease impacts on other industries. Possible associated benefits from reducing the likelihood of trade retaliation are excluded. Based on 1980s and early-1990s studies, conservative elasticity ranges of from -0.2 to -0.4 for local demand and of 0.3 to 0.6 for local supply are used.

disease scenario – fire blight entry to all regions and a relatively large cost impact – a net economic gain of A\$90 million was estimated. With open trade and no disease, the gains increased to A\$108 million. The estimated gains always increase with increases in demand and supply elasticities. In all cases, annual consumer gains of some A\$200m were estimated. Over 50 years with discount rates of 7.5 to 10%, the net gains in national welfare were found to be A\$1 billion to A\$1.9 billion (or well in excess of A\$2 billion at AQIS's preferred rate of 5%). Arthur concluded that the approach to quarantine-based restrictions was unacceptable as a means of pursuing the society's best interests.

Arthur made similar findings to this paper on the basic inefficiency of the Australian apple industry, citing in particular a 2001 study that showed Australia ranked twelfth in the world for production efficiency and eleventh on overall competitiveness.<sup>21</sup> That study found that New Zealand ranked second in production efficiency and first on competitiveness. Since the mid-1990s, its costs per tonne have been about half Australia's. Domestic price differences have reflected these cost differences and at times have even been greater eg, the study found in 2001 New Zealand wholesale apple prices were about A\$300 a tonne compared to some A\$850 in Australia.

His analysis of the disease risk was fairly pessimistic, but examined a range of possible circumstances. He cited another study showing that if fire blight spread to all areas Australian production costs would rise by 2-6% and output would fall by 3-20%, depending on the severity.<sup>22</sup> It considered various probabilities of disease entry and severity but emphasised that the likelihood of the disease spreading to all areas was low. Citing a WTO analyst (Stanton 2001), Arthur pointed out that governments faced important financial and resource costs to challenge or defend their measures in the WTO, and questioned why an IRA should even be undertaken if it can be shown from the outset that the maximum possible producer losses from the good's importation are notably below the associated consumer gains with the pest or disease risks.<sup>23</sup> Arthur argued it is intuitively perverse for governments to spend taxpayer funds defending an industry's protection if removing it would offer them gains from trade.<sup>24</sup>

Another recent study in 2009 by Yue and Beghin (the latter is a senior economist well known for his contributions on biosecurity and related agricultural policy issues and also a recognised international expert in measuring protection from non-tariff trade barriers) uses the New Zealand apple case to illustrate how highly protective a ban claimed to be

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<sup>21</sup> Hassall & Associates, 2001, 'The Apple Industry Squeeze', report prepared for the Australian Government Department of Agriculture, Fisheries and Forestry, Canberra.

<sup>22</sup> Hinchy M and Low, J 1990 'A Cost-Benefit Analysis of Quarantine Regulations to Prevent the Introduction of Fire Blight into Australia: Report to the Australian Quarantine and Inspection Service, ABARE, Canberra.

<sup>23</sup> Stanton, GH, 2001 'The WTO dispute settlement framework and operation' in Anderson, McRae and Wilson (eds) Canberra, pp 9-28.

<sup>24</sup> Arthur also argued that incorporating more comprehensive economic analysis in the decision to apply a quarantine measure is unlikely to be disputed by other members of the WTO since it is likely to result in the adoption of 'least trade restrictive' measures (WTO 1995, p60), and that the large consumer costs are still a reflection of 'relevant economic factors' required by the WTO to justify quarantine measures (WTO 1995 'Legal Texts: Results of the Uruguay Round of multilateral Negotiations', Cambridge University Press, Cambridge, p 62.).

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SPS consistent can be.<sup>25</sup> Using a similar case study to our own, but with slightly different assumptions, it found that Australia sacrificed annually some US\$50 million year in net welfare by banning New Zealand apple imports – equivalent over a number of years to a present value of some US\$1000 million assuming a 7% discount rate.

The study's methodology seems to be more intended to demonstrate the analysts' familiarity with certain academic research tools, than skills in balanced investigation. In particular, undue attention may have been given in the study to estimating Australian apple demand and supply elasticities relative to the inherently more uncertain issue of what cost a fire blight incursion might impose on the local industry. Nonetheless, the authors' conclusion that even if one assumes pessimistically that a fire blight incursion would cut local output by a much as 20%, the nation would still be better off to allow the imports, supports Arthur's 2006 and our own findings. The strong Yue/Beghin conclusion arises essentially because the authors' best-bet finding is that consumer gains from imports exceed producer losses by 2 to 3 times. Only if fire blight damage to local output was an unthinkable large 50% do they find that the net benefits of imports would become trivial.

As in the Arthur study, the net dollar gains to Australia from imported New Zealand apples in the Yue/Beghin study are broadly similar to those presented in this paper. Variations reflect different assumptions.

Surprisingly, there have been a couple of economic, or largely economic, studies which have found that importing New Zealand apples would not be in the national interest. These are the exception. As always, their validity turns on the reasonableness of their assumptions.

One study in 1997 by Viljoen *et al*, for example, stressed as a key reason for keeping the import ban on apples, the disease threat that potentially infected apple imports would pose to the pear industry.<sup>26</sup> Besides not canvassing any downsides of the ban for consumers, and not allowing for the fact that the probability of fire blight invasion would be low, the paper took an exaggerated view of the costs of treatment and crop loss that would be expected if a fire blight invasion did occur. Today different assumptions would be regarded as more appropriate.

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<sup>25</sup> Yue, Chengyan and Beghin, John C, 2009, 'Tariff Equivalent and Foregone Trade Effects of Prohibitive Barriers to Trade', *Amer. J. Agr. Econ.* 91(4) November 930–941 [See: <http://www3.interscience.wiley.com/cgi-bin/fulltext/122511563/PDFSTART>], and Beghin, J. 2008. 'Nontariff Barriers.' in Darlauf S. and Blume, L. eds. *The New Palgrave Dictionary of Economics*, 2nd Edition. Palgrave Macmillan, pp. 126–9.

<sup>26</sup> Viljoen, J, McGillivray, M, Orton, T and Oliver, G, 1997, 'The Potential Impact of Fire Blight on the Australian Apple and Pear Industry: A Socio-Economic Study', Corporate Strategy Consulting, Camberwell.

Interestingly, CSIRO's David Cook, mentioned earlier in this section, co-authored in 2009 a workshop paper on the likely impact of imports of apples from New Zealand.<sup>27</sup> Cook and his co-authors use the same cost benefit methodology as Cook presented in the 2008 journal article we cited earlier. Even so, applying this standard economic approach, the authors conclude that the import of New Zealand apples would not be in Australia's best interests, or would be of marginal interest – a result very different from our own. Conceptually Cook *et al*'s methodology is basically sound. However we disagree with a few of their assumptions. The main reason for the difference between their finding and ours turns out to be their assumption that the appropriate domestic price for comparison with the landed price of New Zealand apples is around A\$1200 per tonne, rather than our preferred value of A\$2000. Our preferred figure - nearly twice that used by Cook *et al* – is based on detailed metropolitan wholesale market data (as explained in Attachment 3), and is consistent with the industry's declining international competitiveness as revealed by the steady decline in Australian apple exports over the last decade. If the Cook team had used our preferred average domestic price figure, its analysis would have produced an assessment similar to ours.<sup>28</sup>

Their particular results for apples aside, we do endorse what is arguably Cook *et al*'s key policy message, expressed in the 2010 summary version of the paper as follows:

'Article 5 of the WTO Agreement on the Application of Sanitary and Phytosanitary Measures, commonly referred to as the SPS Agreement, identifies the factors considered paramount from a WTO perspective in assessing the extent of quarantine risks. But a conspicuous omission from this list of relevant factors is *consumer gains from trade*. This becomes highly important when attempting to use measures of societal welfare to examine the impact of market access requests because consumers constitute a large proportion of society.'(p2)

#### 4.2 Adverse international opinion

The unbalanced way in which Australia makes quarantine decisions has also been noticed in international trade policy circles. The WTO's Trade Policy Review for Australia, undertaken every four years, has repeatedly highlighted Australia's unduly restrictive

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<sup>27</sup> The paper by David C. Cook, Liu, Shuang, Fraser, Rob W, Siddique, Abu-Baker and Paini, Dean R and entitled 'Estimating the Social Welfare Effects of New Zealand Apple Imports' appears as a CRC Plant Biosecurity discussion paper dated October 2009 at the web address: [http://www.acbee.anu.edu.au/data/pdf/publications/Investigating\\_NZApple.pdf](http://www.acbee.anu.edu.au/data/pdf/publications/Investigating_NZApple.pdf). A three-page summary of the results, presented at the Edinburgh meeting of the (UK) Agricultural Economics Society held 30-31 March 2010, appears on the Society's website at [http://www.aes.ac.uk/\\_pdfs/\\_conferences/293\\_paper.pdf](http://www.aes.ac.uk/_pdfs/_conferences/293_paper.pdf)

<sup>28</sup> Significant care is required to choose a valid basis for the comparison of local and imported apple prices. In our view, neither the raw fruit value data produced by Horticulture Australia Limited (eg, as used by Cook *et al* 2009), nor the values sometimes cited by industry officials (eg those attributed in mid-2010 to a statement by John Corboy, Apple and Pear Australia fire blight taskforce chairman, that the apple industry is worth \$700 million a year – see: <http://theland.farmonline.com.au/news/nationalrural/horticulture/fruit/apple-growers-fear-fmd-of-horticulture/1857978.aspx?src=enews>) can be credibly compared with landed duty free import prices.

quarantine system. This is a major embarrassment for a country which routinely criticises the agricultural trade restrictions of other countries. Thus, although Australia has done much in recent decades to liberalise protectionist pockets in its own agricultural sector, such as dismantling out-of date statutory marketing structures, its strong reluctance to reform highly restrictive quarantine measures undermines its credibility internationally. This is especially so, given that as leader of the Cairns Group, Australia has habitually espoused trade liberalisation in international forums.

A hidden cost for Australia of the current approach is the way decisions perceived as unreasonable can prompt retaliation by trading partners. Adverse international reactions can have damaging repercussions for other industries - as has been the case with Thailand's reactions (eg, in relation to Australian exports of dairy products and fruit) to Australia's denial of access of Thai producers of fruit and chicken meat. Oddly, as with the impact on Australian consumers, the counting the likelihood of such reactions is not part of Australia's current IRA methodology.

## **5. EFFICIENCY IMPLICATIONS**

### **5.1 The reform imperative**

Estimates of assistance levels to Australian apple growers from quarantine measures show that the stringent phytosanitary import-restricting measures imposed on New Zealand apples has propped up an inefficient domestic industry while denying Australian consumers average annual savings on apple purchases of A\$250 million. Put bluntly, the current quarantine measures are contrary to Australia's best economic interests. There is no economic reason why Australian apple (or pear) producers should continue to be sheltered from import competition in this way on the pretext of some diabolical disease threat.

Maintaining a disease-free status in any commodity has substantial economic costs and these must be taken into account in any balanced IRA. There is a case for asking the the Australian pome fruit industry to manage its own disease threats just as counterparts do in exporting countries. Certainly, it is anomalous to require consumers to continue supporting an inefficient industry that despite not having to bear the disease control costs borne by New Zealand growers still cannot compete. Why should not Australian growers be responsible for handling the disease threat, and compete on this front with overseas suppliers as well as with other potential users of land, water, fertiliser and labour on their merits? The apple industry's highly privileged treatment prevents this efficient competitive process from working.

Australia's appropriate policy response would be to allow imports of mature symptomless fruit from New Zealand and elsewhere, subject to other basic phytosanitary measures for them to be certified in the exporting country as disease free. This would satisfy the 'sufficient scientific base' required in the SPS Agreement, but far more importantly would be in Australia's national economic interests. With average savings of some A\$250 million annually to Australian consumers and the economy generally from liberalising the apple trade alone, the net benefits would remain substantial even if a

major disease outbreak severely cut production. Even if the industry suffered significant production cuts from disease every 10 years or so Australia would still be ahead by allowing imports.

Rather than defending this case at the WTO and giving the impression that it is defensible and that Australia would be economically worse off without such quarantine measures, Australia should have ensured that a proper economic assessment was undertaken of the national welfare benefits of reforming its antiquated overly restrictive SPS arrangements, which treat those in one section of the Australian farming community as if they are unable make their own way.

There is a real risk that Australia's loss in Geneva will not prompt genuine reform. In particular, the preoccupation of officials with the modest changes recommended in the report of the recent (Beale) review of biosecurity could become an unhelpful distraction.<sup>29</sup> The Beale report of 2008 exposed many flaws in Australia's quarantine policy that needed to be remedied, but its terms of reference gave it little scope to examine the economic content of the current administrative rules. Moreover, as it was finalised in September 2008, it had limited capacity to delve into any of the issues already under scrutiny in the WTO dispute then in process. Reform needs to be considered on a much wider canvass than discussed in that report.

The fact is Australia would benefit economically from genuine non-discriminatory reform, and the best time to start is now by allowing apple imports from New Zealand. An equivalent move with pears could be made at the same time, or soon after.

## **5.2 Impact of New Zealand apple imports**

### **(a) Competitive pressure**

Allowing unrestricted New Zealand imports would undoubtedly place substantial competitive pressures on Australian apple producers, who would have to improve their efficiency and lower prices to compete. While this may, initially at least, hurt local industry and producer returns directly, the economic gains to Australian consumers and the economy generally would outweigh these losses from a national welfare perspective. An appreciation of the substantial benefits available from liberalisation of selective measures has been the foundation for the significant trade reforms Australia has adopted since the mid-1980s. Opening Australian industries to foreign competition has greatly enhanced productivity and contributed to economic success.

Against this backdrop, Australian apple (and pear) producers, being protected by stringent quarantine import restrictions (effectively still an embargo), have remained immune from international developments. Consequently, the industry today encounters the same inefficiency and non-competitiveness as 30 years ago when, confronted by the loss of Commonwealth export markets, it had no alternative but to adjust structurally.

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<sup>29</sup> Report details and the Australian Government's preliminary response can be viewed at: <http://www.daff.gov.au/quarantinebiosecurityreview/home>.

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Being sheltered from import competition has undermined those adjustment efforts, which remain incomplete. As already mentioned, the industry acknowledges its efficiency and competitiveness problems. Quarantine protection has obstructed industry adjustment and left a backlog to be addressed.

Some argue the industry should be granted protection because it is regionally significant in all states, especially Victoria and NSW, the two largest producing states. However, while politically this argument might have some support, it is economically baseless. What Australia, and these regions, require are thriving efficient industries with the potential to expand rather than dormant industries destined for economic stagnation. Exposing apple (and pear) growers to import competition will not only assist them to import more competitive varieties and methods from New Zealand and elsewhere but also provide the necessary pressures needed to raise efficiency and attract the investment needed to improve performance.

The earlier discussion of the exaggerated importance usually given to regional impacts in the Australian IRA reports noted that apple growing is no longer the dominant activity in any of Australia's apple growing areas as the old data suggests, and that in any case national impacts are what count in trade policy matters.

### (b) Trans Tasman joint ventures

One fact not widely appreciated is that in spite of on-going tensions, the New Zealand and Australian apple industries conduct joint ventures in a number of spheres, such as research. Opening the Trans Tasman apple trade could widen the scope for such joint activities, especially on the genetic improvement and marketing fronts. Further, New Zealand apple industry firms are likely to want to raise their involvement at farm and processor levels in Australia following liberalisation of the apple trade.

Precedents for this exist in the dairy industry where globalisation over the last decade has seen New Zealand investment at both farm and processor levels in Australia. Several New Zealand farmers started operations in Northern Tasmania, for example, and New Zealand's giant dairy firm Fonterra has become one of Australia's top two dairy marketing companies. The economies of scale and two-way transfer of knowledge has made the dairy industries of both countries more productive.

### (c) The consumer gain

The apple (and pear) import prohibition in place for years has been removed and imports of apples at least, is allowed subject to stringent quarantine management controls. While in principle an important change, the remaining question is whether such arrangements will enable sufficiently competitive New Zealand exports to push Australian prices down to 'world' levels. The fact that the New Zealand Government, requested by its pip fruit industry, decided to incur the substantial expense of taking the case to the WTO strongly suggests otherwise. If import compliance costs are prohibitive, Australia will continue to forgo the potential national welfare benefits from such imports.



Australia's per capita fresh apple consumption is low by international standards, no doubt partly because of the higher apple prices. For Australia this is around 5-6kg per person, low compared to other countries eg, 15kg in New Zealand.<sup>30</sup> As well as benefiting Australian consumers and the economy generally by reducing apple prices, imports would provide them with much greater choice in apple varieties. Australia's variety mix is still significantly in old varieties such as Red Delicious and Granny Smith, while New Zealand no longer produces them as they are mostly produced by low cost Southern Hemisphere competitors.

Imports would provide greater choice to Australian consumers and permit household budgetary savings and this would be a competitive plus.

## **6. TOWARDS A POLICY SOLUTION**

### **6.1 Bilateral arrangements**

Australia has bilateral preferential trading arrangements with New Zealand and other major apple exporters, like Chile and US. This raises the issue as to whether such arrangements offer frameworks suitable for pursuing the economic benefits of apple imports. As discussed below, none of these agreements have addressed in any substantive manner quarantine arrangements, generally redundantly reiterating provisions of the SPS Agreement which would have operated anyway given that the partners are WTO members.

#### **(a) New Zealand**

Two agreements between Australia and New Zealand apply. First, there is the longstanding CER Agreement already mentioned, and related mutual recognition agreements. Second, Australia and New Zealand both recently signed in February 2009 the Agreement Establishing the ASEAN-Australia-New Zealand Free Trade Area (AANZFTA).

The initial CER in 1983 contained no quarantine provisions. A Protocol to Harmonise Quarantine Administrative Procedures by July 1990 was added in 1988. In addition, the Protocol encouraged the use, where appropriate, of international codes and standards as well as the harmonisation of each country's quarantine standards and procedures. In particular, emphasis was to be given to achieving a speedy resolution of quarantine problems hindering trans-Tasman trade in a number of specified goods, including apples.<sup>31</sup> Most of these ambitions remain unfinished business, including on apples as the current case exemplifies. Interestingly, quarantine is also permanently exempted from the Trans-Tasman Mutual Recognition Act 1997.

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<sup>30</sup> Other international per head consumption figures are Belgium (18 kg), France (15 kg), Denmark (20.5 kg), Germany (19.5 kg), Austria (25 kg), Poland (13 kg), China (14 kg), UK (10 kg), Canada (13 kg), US (7.5 kg), Taiwan (6 kg), and Turkey (33 kg).

<sup>31</sup> The other listed products are berry fruit, cucurbits (cucumbers, squash and zucchinis), grapes, nursery stock, pig meat, poultry hatching eggs, poultry meat, frozen and chilled salmon, and tomatoes.

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While the proposed AANZFTA, due to come into force in 2010, has a chapter (Chapter 5) on SPS measures, it is essentially commitment free. It reiterates the operation of the SPS Agreement and provides for a sub-committee to be formed to assist in the exchange of information, consultation and cooperation. Quarantine disputes that cannot be resolved by consultations are to be referred to the AANZFTA Joint Committee. However, quarantine measures are not covered by the AANZFTA's dispute settlement provisions.

### (b) Chile

The Australia-Chile Free Trade Agreement (ACFTA), which entered into force on 6 March 2009, has a short chapter (Chapter 6) on SPS arrangements. It unnecessarily (since both countries are WTO members) reiterates the SPS Agreement and calls for greater informational exchange, cooperation and consultation. However, these are excluded from the ACFTA's dispute settlement procedures.

### (c) United States

The Australia-United States Free Trade Agreement (USFTA) has a chapter (Chapter 7) on SPS measures which again unnecessarily reiterates the SPS Agreement and calls for greater informational exchange, cooperation and consultation. A Standing Technical Working Group on Animal and Plant Health Measures was established.

### (d) Can bilateral arrangements help reform Australia's quarantine arrangements?

While reiterating the SPS Agreement in bilateral arrangements, and calling on greater informational exchanges, cooperation and consultation, sounds good, SPS matters are clearly taboo, or a 'no-go' area, in any FTA Australia signs. They have done nothing to reform Australia's quarantine quagmire and given their poor track record, this route offers little hope for any future improvement.

More fundamentally, however, bilateral deals cannot ever be a satisfactory way of reforming Australia's quarantine arrangements (or other trade measures). Such attempts to reform will always make Australia's trade regime more discriminatory by providing partners of such agreements preferential access at the expense of non-partners. Such discriminatory liberalisation with quarantine measures, like for tariffs and other trade barriers, seriously risks diverting Australian imports towards inefficient exporters receiving preferential treatment rather than creating trade (ie, replacing domestic output with more efficient imports), thereby probably adversely affecting its national welfare.

The bilateral approach is also fundamentally flawed in that it would substitute a half-baked assessment process for the proper public interest test based on a cost/benefit analysis proposed in this paper.

Hence, the answer to the question is a resounding 'No!' Australia cannot and more to the point should not use bilateral trading arrangements to resolve its quarantine quagmire.

## 6.2 Unilateral reforms

As with all trade reforms the answer lies in countries pursuing unilateral opening to increase import access to their markets. This is the major source of economic gains, and no country benefits more from trade liberalisation than the country that does it itself. Australia's quarantine quagmire, as a major non-tariff barrier, restricts welfare-enhancing imports and hurts Australia and its people. A recent study found Australia's non-tariff barriers on food imports, mainly 'overly strict quarantine laws', raised prices by an average 20%.<sup>32</sup> Japan and Australia were found to have the highest proportion of non-tariff barriers on food imports to total protection among OECD countries.

### 6.2.1 Introducing a national interest test based on cost benefit analysis

#### 6.2.1.1 Product-based assessments

As highlighted earlier, a proper national interest test via a cost benefit analysis on the question of Australia's apple imports from New Zealand would allow much greater market access. While that would ultimately have major implications for how Australia assesses quarantine risks, the potential of that approach to provide large economic gains to Australia should be acknowledged.

In particular, rather than conducting individual product IRAs on a country-by-country basis as requests are received from trading partners, Biosecurity Australia should consider whether they can be done product-by-product in a way that covers all possible major trading partners. This would make sense since the current piecemeal or single product country-by-county basis is inefficient, involves considerable duplication, and helps politicise the process as country requests repeatedly become engulfed in a whole range of domestic issues, such that they are prone to receive different treatment, eg, over timing. Thus, instead of doing the apple IRAs sequentially, with New Zealand completed first, followed by China and the US, they should be done together, and embrace other major world exporters, eg, Chile and Brazil, too. That is, Australia should conduct a full review of its major quarantine measures by product.

Moving to a national interest/cost benefit test would require this change since when considering imports of a disease-prone product the truly best option for Australian consumers or the economy generally cannot be assessed by looking solely at any particular single-source country. Applying a cost benefit or national interest test by country on a product basis makes little sense unless all done together. Otherwise, those countries examined first would, if passed for entry, be given a huge advantage and with no certainty that Australia had chosen correctly to maximise national welfare.

For example, applying it, say, to the liberalisation of the apple trade with New Zealand could, since it is a world efficient exporter, lead it to be judged to provide the competition necessary to reduce domestic apple prices to world levels. In those circumstances, New

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<sup>32</sup> Bradford, S, 2006, 'The extent and impact of food nontariff barriers in rich countries', *Journal of International Trade and Development*, vol. 2, no. 1, pp. 127-58.

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Zealand would almost certainly be granted entry and the assessed benefits of subsequently allowing imports from other major exporters, eg, US or China, would be diminished, perhaps so much as to make the cost/benefit analysis negative for allowing entry additionally by them, leading to a refusal in their cases. Thus a piecemeal assessment could lead to a sourcing anomaly by allowing in practice not the cheapest or lowest quarantine risk imports simply because other countries got in first. Of course, to ensure the most competitive Australian market, imports should have the scope to come from as many world suppliers as possible – this is the best guarantee of ensuring Australia benefits from welfare-enhancing imports.

A practical approach would be to assess entry of all potential sources for a product at once, and to do so at intervals, say, of 5 to 10 years (see below).

As explained previously, Australia's current IRA system uses two major components to arrive at its Appropriate Level of Protection (ALOP) for setting quarantine measures. These are essentially estimates of the probability that imports from the particular country will lead to the introduction and spread of the disease or pest (a largely quantitative test) and of the costs of this to growers and the economy (a largely qualitative or subjective assessment, not only of their level but also of the indirect costs that should be included, including at regional and local levels). These two components are combined in a largely qualitative matrix to set Australia's ALOP. A major weakness of this method is that it excludes from consideration the welfare-enhancing benefits of imports to consumers and the economy generally.

Conceptually these benefits could be incorporated in the IRA in either of two places. On the one hand, they could be included in the ALOP by being netted out from the assessed costs. Alternatively, the ALOP, once determined in quantitative terms (the expected value of the costs of having an incursion) could be compared with the expected trade benefits from easing import restrictions. The second and best approach is advocated here.

This would compare the expected costs of having the pest (probability of the nominated pest entering and spreading multiplied by the expected value of the costs of suffering the incursion) with the estimated economic gains from imports. If the sum is positive for a particular country imports should be allowed. While the expected losses from an incursion will be constant across countries, the probability of importing the disease or pest will differ, such that the expected value of losses will vary. Depending on a country's production efficiency and capacities or supply elasticities, the expected trade benefits from each country may differ. For example, allowing imports from an inefficient exporter is likely to yield minimal trade benefits. Estimating these by country may require using detailed econometric models, which can be done, although complex. But doing such an analysis is far better than ignoring the issue. Being able to estimate some of the key values, which should be possible, in a partial equilibrium framework would considerably simplify the calculation, and may be sufficient even if less precise. In any case, economic modeling would be no more demanding than the scientific probability estimation and the cost assessments already routinely done in IRAs.

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As indicated, this paper recommends that any quarantine inquiry (say, in regard to importing plums from New Zealand) would become a review of world supply possibilities. It is envisaged that the IRA reviewing the New Zealand application to import the product would end with a 'negative list' type recommendation to the Minister. That is, the recommendation would, in the case of say, plums, be:

- allow plums into Australia from any country unless in a negative list; and
- make entry from certain sources (say 10) conditional on meeting specified requirements: eg, treatment and bond payment.

### 6.2.1.2 A worked example

The following simplified example shows how the two elements - the expected costs of the risk of introducing the pest and the expected trade benefits of allowing imports - could be combined to determine whether to allow imports of a product from a country, and if so on what conditions.

Imagine country A is considering whether to allow product X imported from three countries, B, C and D. Assume the IRA has assess the probability of a disease incursion from imports from them to be 0.1, 0.3 and 0.6. Assume also that the estimated costs to the industry and associated communities of suffering the incursion totals A\$1 million. Thus, the expected value of these costs per country would be A\$100,000 (low risk), A\$300,000 (medium risk) and A\$600,000 (high risk). This is where Australia's IRA analysis stops, and based on its current qualitative and quantitative judgments, is where its ALOP is set. As A\$100,000 is substantial, assume a very conservative ALOP is set at some (undefined) lower level, such that imports from all three countries are stringently controlled.

However, introducing potentially welfare-enhancing imports re-balances the assessment. Suppose that because of quarantine import restrictions, prices of product X are 10% higher than otherwise, and this costs country A consumers and the economy generally either A\$500,000, A\$1 million and A\$10 million annually in transfers to domestic producers, with the real answer depending on closer analysis. Also, for illustrative purposes assume the share of potential consumer and economy-wide benefits likely to be realised from each country varies from zero, 0.25 and 0.75 for countries B, C and D, respectively. On this basis, decision outcomes for different assumed total benefits of A\$500,000, A\$1 million and A\$10 million can be presented. Also, again for illustrative purposes, a different scenario in which the share of potential benefits realised for countries B, C and D are 0, 1 and 1 respectively will be shown for the A\$10 million case.

The decision matrix for country A would be as in Table 2 below.

**Table 2: Quarantine decision matrix for country A on imports**

| Country                                     | Risk (%) | Costs (\$) | Expected value of costs (\$) | Total benefits (\$) | Benefit share (%) | Benefit amount (\$) | EV benefits less costs (\$) | BC ratio per unit (1% of risk (%)) | Import decision |
|---|----------|------------|------------------------------|---------------------|-------------------|---------------------|-----------------------------|------------------------------------|-----------------|
| <b>1. Assume total benefits = \$500,000</b> |          |            |                              |                     |                   |                     |                             |                                    |                 |

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|   |    |           |         |            |      |              |              |       |     |
|---|----|-----------|---------|------------|------|--------------|--------------|-------|-----|
| B   | 10 | 1 million | 100,000 | 500,000    | 0    | 0            | -100,000     | 0     | No  |
| C   | 30 | 1 million | 300,000 | 500,000    | 0.25 | 125,000      | -175,000     | -1.4  | No  |
| D   | 60 | 1 million | 600,000 | 500,000    | 0.75 | 325,000      | -275,000     | -0.9  | No  |
| <b>2. Assume total benefit = \$1 million</b>  |    |           |         |            |      |              |              |       |     |
| B   | 10 | 1 million | 100,000 | 1 million  | 0    | 0            | -100,000     | 0     | No  |
| C   | 30 | 1 million | 300,000 | 1 million  | 0.25 | 250,000      | -50,000      | -2.8  | No  |
| D   | 60 | 1 million | 600,000 | 1 million  | 0.75 | 750,000      | 150,000      | 2.08  | Yes |
| <b>3. Assume total benefits = \$10 million</b>  |    |           |         |            |      |              |              |       |     |
| B   | 10 | 1 million | 100,000 | 10 million | 0    | 0            | -100,000     | 0     | No  |
| C   | 30 | 1 million | 300,000 | 10 million | 0.25 | 2.25 million | 1.95 million | 25.0  | Yes |
| D   | 60 | 1 million | 600,000 | 10 million | 0.75 | 7.75 million | 7.15 million | 21.5  | Yes |
| <b>4. Assume total benefits = \$10 million and countries C and D both provide full benefits</b> |    |           |         |            |      |              |              |       |     |
| B   | 10 | 1 million | 100,000 | 10 million | 0    | 0            | -100,000     | 0     | No  |
| C   | 30 | 1 million | 300,000 | 10 million | 1    | 10 million   | 9.7 million  | 107.8 | Yes |
| D   | 60 | 1 million | 600,000 | 10 million | 1    | 10 million   | 9.4 million  | 26.1  | No  |

This decision matrix has four scenarios for three candidate countries. With scenario one, with assumed benefits of A\$500,000, and the assumed probabilities of disease incursion from countries B, C and D being 10%, 30% and 60% respectively, a national benefit test allows imports from none of the countries. In scenario 2, with all the same assumptions but higher benefits of A\$1,000,000, only country D qualifies as an import source. In scenario 3, again with all the same assumptions except that benefits are assumed to be A\$10,000,000, both countries C and D qualify. In scenario 4, in which two countries offer the potential for delivery of the full benefits to local consumers, country C is preferred because it presents lower risks, and is the only import source allowed.

Illustrative examples could be easily constructed covering various circumstances that would produce different outcomes. The decision matrix would presumably differ for each product or family of products.

### 6.2.1.3 WTO SPS Agreement

A common view of defenders of the status quo is that the SPS Agreement, and hence Australia's WTO commitments, prevent Australia from applying a national interest/cost benefit test to quarantine. As indicated, the Beale Committee referred to this alleged legality in detail and seemingly judged it to be the major obstacle to recommending Australia adopts such a test. Such a legal interpretation, if sustained, would be damning of the WTO agreement. More particularly it would reflect badly on Australian officials who negotiated it if it stood in the way of Australia implementing welfare-enhancing reforms to liberalise imports. If this were shown to be correct, Australia would want to rectify the problem urgently by trying to re-negotiate the SPS Agreement, since the Government cannot withdraw from it without also leaving the WTO (the non-plurilateral Agreement is part of the 'single undertaking'). This would be difficult and time consuming. We will return to this issue a few paragraphs below.

In the meantime, Australia could implement a national interest/cost-benefit test and leave it to its trading partners to challenge it. WTO members can be as 'illegal' as they wish until the measures are challenged by trading partners. To the extent that such an Australian test would liberalise quarantine measures and allow export opportunities to WTO Members, it would seem unlikely to be challenged. Moreover, even if it was, the purported illegality may not stand up given WTO jurisprudence in this area is largely

untested. To the contrary, this paper's proposed national interest/cost benefit test seems well within WTO rules and stated goals.

The United States has introduced such a test and while it seems not to be part of its formal administrative SPS processes, cost benefit analysis is regularly undertaken and made public during or following formal reviews. This approach has the potential to add an economy-wide discipline to decision making. These developments should be watched closely.

Australia could do likewise as an interim step in broadening its formal SPS analysis. This would contribute to domestic public understanding of what is at stake and provide a useful safeguard against socially perverse outcomes.

#### 6.2.1.4 WTO legality issues

The SPS Agreement seems to have several relevant provisions to applying a national interest/ cost benefit test, including:

- *in assessing risk and determining the measure to be applied for achieving Australia's ALOP, members shall take into account as relevant economic factors: the potential damage in terms of loss of production or sales in the event of the entry, establishment or spread of a pest or disease; the costs of control and eradication in the territory of the importing member; and the relative cost-effectiveness of alternative approaches to limiting risk (Article 5(3)).*

A contentious issue is whether this provision exhaustively covers the economic costs that a country can take into account when determining its ALOP. If so, countries could not legally include in assessing import requests other costs associated with imports, such as multifunctionality factors or the costs of any lost domestic sales from import competition. However, the provision, like the SPS Agreement generally, is silent on the treatment of the economic trade benefits to a country from de-restricting welfare-enhancing imports. As they are not mentioned there would seem no WTO legal obstacle to including them, especially in the way proposed here – ie, as an additional component of determining whether to apply quarantine measures.

- *Members shall ensure that their SPS measures are based on an assessment, as appropriate in the circumstances, of the risks to human, animal or plant life or health, taking into account risk assessment techniques developed by the relevant international organisations (Article 5(1)).*

Again the issue here seems to be whether this provision actually forbids a signatory country from applying quarantine measures based on a national interest/ cost benefit test in addition to determining its ALOP. Adding such a test as an important input to the ALOP could be argued consistent with these provisions, which state that measures are to be 'based on an assessment, as appropriate in the circumstances, of the risks...'

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- *members ensure that their SPS measures do not arbitrarily or unjustifiably discriminate between them where identical or similar conditions prevail, and that SPS measures shall not be applied in a manner which would constitute a disguised restriction on international trade (Article 2(3)).*

Applying the proposed national interest/cost benefit test would not change the country's determination of its ALOP as per the SPS Agreement. A national interest/cost benefit test may mean that imports of particular products will be allowed from some countries and not others. But quarantine requires such discrimination. Australia's quarantine policy should permit imports from countries to maximise the welfare-enhancing effects on consumers and the economy while minimising the expected costs of an incursion, subject to the former outweighing the latter. As the expected economic costs to be included in determining Australia's ALOP for a particular incursion if introduced will be constant across countries (i.e. independent of the source country), rankings in country risks will reflect differences in the probability of the pest or disease being imported. Thus, members with different quarantine import measures across countries based on such analysis of the distribution of trade benefits and the expected value of costs of an incursion could reasonably claim not to 'arbitrarily or unjustifiably discriminate between Members' or to be implementing a 'disguised restriction on international trade'.

- *Within the concept of achieving consistency in the application of the concept of ALOP ..., each member shall avoid arbitrary and unjustifiable distinctions in the levels it considers to be appropriate in different situations, if such distinctions result in discrimination or a disguised restriction in international trade (Article 5(5)).*

Again, this paper's proposal to incorporate a national interest/cost benefit test as an extension to the ALOP would seem to have no implications for this provision.

- *Members should, when determining the ALOP, take into account the objective of minimising negative trade effects (Article 5(4)).*

While the precise meaning is unclear given its wording, this paper's proposal to extend the ALOP by incorporating a national interest/cost benefit test would seem to have no implications for this provision.

- *Members shall ensure that measures to achieve the ALOP are not more trade-restrictive than required to achieve their ALOP, taking into account technical and economic feasibility (Article 5(6)).*

Again, this paper's proposal to incorporate a national interest/cost benefit test as an extension to the ALOP would seem to have no implications for this provision.

In short, there is no good legal reason to prevent Australia from adding a national interest test to the quarantine assessment process, and the sooner done the quicker Australian consumers and the economy will benefit from New Zealand apple imports.



## ATTACHMENT 1

### THE HISTORY OF NEW ZEALAND'S APPLICATIONS FOR ACCESS TO THE AUSTRALIAN APPLE MARKET

The following is a brief history of New Zealand's various attempts to gain access to the Australian market for apples.

It draws mainly on a document entitled '*Australia – Measures Affecting the Importation of Apples from New Zealand, First Written Submission of New Zealand*' which was submitted by the New Zealand Government to the WTO Dispute Panel in mid-2008. This larger document can be found on the WTO website.

#### 2. First request

In 1921, Australia banned New Zealand apples when it was confirmed that the disease fire blight had entered and become established in Auckland in 1919.

The first formal New Zealand request for access after that date was made 77 years later, in 1986.

Following a two-year investigation, in 1988 the request was denied on the grounds that imports of apples into Australia from New Zealand would create the potential for latent and symptomless infection of host plants in or near orchards that are free from fire blight.<sup>33</sup>

#### 3. Second request

New Zealand revised its proposal and resubmitted it in 1989. This time New Zealand proposed a combination of conditions: sourcing of apples only from a low fire blight areas; visual orchard inspections; post-harvest chlorine dipping; and testing of export fruit. The relevant scientific authority in Australia, the Bureau of Rural Resources, judged that such measures would result in a 'negligible' or insignificant risk for the introduction of fire blight to Australia.<sup>34</sup>

However, following consultation with stakeholders (including the Australian industry) the administering authority recommended that the New Zealand request be denied, on the basis that there were 'gaps' in research on the effect of fire blight<sup>35</sup>. The Australian Government formally rejected New Zealand's second request in November 1990.<sup>36</sup>

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<sup>33</sup> Australian Quarantine Inspection Service, 1989, 'Proposal for the import of apple fruit from fire blight free districts of New Zealand'; A Discussion Paper', October, Canberra

<sup>34</sup> AQIS, 1989 *Proposal for the import of apple fruit; A Discussion Paper*, AQIS Bulletin 1(2) October, p. iv

<sup>35</sup> Australian Quarantine Inspection Service, 1990, *Assessment of New Zealand proposal to export apples*

#### 4. Third request

On 1 January 1995, following the entry into force of the WTO *SPS Agreement*, a new mechanism to resolve the matter became available.

New Zealand's third request, made in October 1995 under the new WTO mechanism, detailed the considerable research that had been undertaken between 1992 and 1995 following discussions between scientists in New Zealand, the United States, Canada and Australia and made clear the relevant findings that apples sourced from trees with active fire blight were not a pathway for the disease, as long as they were free of trash. In accordance with the relevant scientific material, New Zealand proposed that Australia apply a requirement that all apples be free from trash.

Nearly two years later, in early April 1997, the Australian Quarantine Inspection Service (AQIS) released a draft 'pest risk analysis' which, notwithstanding the detailed and conclusive scientific research submitted by New Zealand, alleged that there were 'significant areas of scientific uncertainty about certain steps in the possible pathway of [fire blight] disease establishment via trade in apples'<sup>37</sup>

New Zealand complained that Australia's draft 'pest risk analysis' had failed to take account of relevant scientific research provided to Australia. In addition, it referred to even more recent research that had concluded that the risk of the introduction of fire blight through trade in mature apples was once in 11,364 years.<sup>38</sup>

In its final report issued in December 1998, three years after the request was submitted, AQIS rejected New Zealand's third request and determined that the importation of apples from New Zealand, even if free of trash, not be permitted.<sup>39</sup> It alleged that the scientific research presented by New Zealand had not shown that there was no 'complete and unarguable break in the chain of events that needs to occur for fire blight to enter and establish'.<sup>40</sup> In other words, AQIS was not prepared to rely on science that showed there

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to Australia; *An AQIS position paper*, 30 November, Department of Primary Industries and Energy, Canberra, p. 22

<sup>36</sup> In a letter to the New Zealand authorities on 4 December 1990, AQIS advised that the Australian Minister for Resources had announced on 29 November 1990 that an AQIS assessment had concluded that the draft proposal 'does not provide sufficient safeguards against the entry and establishment of fire blight in Australia.' The AQIS assessment was subsequently issued on 30 November 1990. See Australian Quarantine Inspection Service, 1990, *Letter from A Catley to R Ivess (Ministry of Agriculture and Fisheries)*, 4 December, Department of Primary Industries and Energy, Canberra

<sup>37</sup> Australian Quarantine Inspection Service 1997, *New Zealand request for the access of apples into Australia; Draft Pest Risk Analysis*, , Department of Primary Industries and Energy, Canberra, April, p19

<sup>38</sup> MAF Regulatory Authority 1998, *New Zealand response to Australia's draft pest risk analysis on access of New Zealand apples into Australia*; , Ministry of Agriculture and Forestry, Wellington, April, p7.

<sup>39</sup> Australian Quarantine Inspection Service, 1998, 'Final import risk analysis of the New Zealand request for the access of apples (*Malus pumila* Miler var. *domestica* Schneider) into Australia', , Canberra, December

<sup>40</sup> *Ibid*, p. 23

was a negligible likelihood of the disease being transferred by apples. Thus, New Zealand's third request was denied.

## 5. Fourth request

New Zealand's fourth request was made in January 1999. By this time WTO Dispute Panels and the Appellate Body had clarified the obligations of signatories under the *SPS Agreement*, including through a case involving Australia's own sanitary and phytosanitary measures.

Consistent with the provisions of the *SPS Agreement*, New Zealand requested that AQIS 'review available risk management options with a view to establishing phytosanitary measures that are the least trade restrictive in respect of New Zealand apple exports while ensuring the level of protection deemed appropriate by Australia is met.'<sup>41</sup>

At a bilateral technical meeting on 4 February 1999, Australia advised New Zealand that '[w]ork undertaken on the previous IRA would be utilised in the new IRA where relevant.' Australia made a commitment to complete this process in a timely manner and said it would endeavour to complete the IRA before the end of 1999.'<sup>42</sup>

In spite of this initial response, Australia took almost eight more years to complete its risk analysis process which ultimately would still not provide New Zealand with commercially meaningful access for apple fruit.

AQIS announced to industry stakeholders the existence of the February 1999 New Zealand request and invited comments.<sup>43</sup> In April 1999, it announced that its review of the New Zealand process would follow its normal import risk analysis process in accordance with *The AQIS Import Risk Analysis Process Handbook*.<sup>44</sup>

In June 1999, AQIS made a further announcement that it was forming an in-house team of scientists to conduct the review and that it expected to release a draft IRA in November 1999.<sup>45</sup>

Nearly 12 months beyond its November 1999 target, in October 2000, Biosecurity Australia issued the first of its three draft IRAs.<sup>46</sup>

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<sup>41</sup> MAF Regulatory Authority, 1999 Letter from R J Ivess to B Stynes (Australian Quarantine Inspection Service), Access of New Zealand Apples into Australia: Import Proposal, , Ministry of Agriculture and Forestry, Wellington, 8 February

<sup>42</sup> Australia – New Zealand Plant Technical Discussions, 1999, Summary of Meeting, 4 February

<sup>43</sup> Australian Quarantine Inspection Service 1999, Letter to stakeholders, Import risk analysis – apples from New Zealand, 1999/237, , Department of Agriculture, Fisheries and Forestry, Canberra, 25 February

<sup>44</sup> Australian Quarantine Inspection Service, 1999, Letter to stakeholders, Import risk analysis – apples from New Zealand, DG 37/99 T99/237, Department of Agriculture, Fisheries and Forestry, Canberra, 15 April

<sup>45</sup> Australian Quarantine Inspection Service, 1999, *Letter to stakeholders*, Import risk analysis – apples from New Zealand, DG 43 99/237, Department of Agriculture, Fisheries and Forestry, Canberra, 28 June

The Draft IRA of 2000 did not just cover fire blight; it now included additional diseases and pests including European canker and the insect pest ALCM, which also would require management measures. The Draft IRA 2000 concluded that the risk of fire blight spreading to Australia through the import of apples from New Zealand was 'moderate' and proposed strict phytosanitary controls on any imports of apples. Over ensuing months strong objections were expressed by several parties to the idea that any imports from New Zealand might be allowed at all.

For example, on 11 October 2000, the same day as the Draft IRA was released, the NSW State Minister for Agriculture moved in State Parliament: 'That this House... calls on the Federal Government to protect New South Wales jobs and immediately respond to reports that New Zealand apples will be allowed into Australia.'<sup>47</sup>

A few weeks later, the Maritime Union of Australia, the Transport Workers Union and the Australian Workers Union pledged that they would blockade the nation's ports to stop the Federal Government allowing New Zealand apples into the country.<sup>48</sup>

## **6. Extra investigations by the Senate and new procedures introduced by Biosecurity Australia**

The politicisation of the issue was deepened when in November 2000 the Australian Senate referred apple quarantine arrangements to its Rural and Regional Affairs and Transport Legislation Committee. The Committee was asked to inquire into the administration and management by Australia's quarantine agencies of 'all aspects of the consideration and assessment of proposed importation to Australia of fresh apple fruit from New Zealand.'<sup>49</sup>

The Senate Committee held 12 hearings over four months from February to May, visiting most apple growing regions of Australia. For a week in mid-May 2001, it visited New Zealand.

During the Senate inquiry, apples were frequently in the news.

For example, early in March 2001, the Prime Minister, John Howard, and his Deputy Prime Minister and National Party Leader, John Anderson, were reported to have pledged that they would never allow New Zealand apples into Australia.<sup>50</sup>

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<sup>46</sup> Biosecurity Australia, 2000, Plants Biosecurity Policy Memorandum 2000/18; Import risk analysis – Fresh apples from New Zealand, , Department of Agriculture, Fisheries and Forestry, Canberra, 11 October.

<sup>47</sup> Parliament of New South Wales, Legislative Assembly, 2000, *Hansard*, 11 October, 3.26pm; New Zealand apple imports; Urgent motion '

<sup>48</sup> Tame, Adrian, 2000, 'Blockade threat over NZ apples', *Sunday Herald Sun*, 10 December, p. 12

<sup>49</sup> Commonwealth of Australia, 2001, 'The proposed importation of fresh apple fruit from New Zealand; Interim report', Senate Rural and Regional Affairs and Transport Legislation Committee, , Canberra, *July*, p. v

<sup>50</sup> Parliament of New South Wales *Legislative Assembly*, 2001, *Hansard*, 6 March, 3.50pm; New

During the same week, on 6 March 2001, the Secretary of the Australian Department of Agriculture, Fisheries and Forestry announced changes to the process for reviewing the New Zealand request. Essentially, they would lengthen the process. There was to be an inventory of issues raised during the four month consultation period on the draft IRA; further consultations on that inventory; the development of a scientific review paper based on the issues in the inventory; and then workshops with stakeholders and an external review of the final IRA when it was close to completion.<sup>51</sup>

On 14 March 2001, the main Australian apple industry body organised what it termed 'The Big Crunch Day' featuring protests throughout Australia against the prospect of New Zealand apple imports.<sup>52</sup>

On the same day, the Australian Federal Minister for Agriculture, Fisheries and Forestry issued a press release assuring people attending the protest rallies that 'Australia's quarantine authorities would continue the ban on New Zealand apples while scientific issues remain unresolved.'<sup>53</sup>

In July 2001, the Senate Committee delivered its 251 page interim report which contained wide-ranging recommendations, including that there should be 'guidelines' on consultation in the risk assessment process and the creation of a Risk Assessment Committee in which there would be direct involvement by domestic 'stakeholders'.<sup>54</sup> The interim report also recommended that there be a quantitative risk assessment rather than 'unsatisfactory' qualitative assessment, and that further research be undertaken.<sup>55</sup>

In line with the changes the Secretary of the Department of Agriculture had promised on 6 March, on 28 September 2001 Biosecurity Australia released a new draft technical manual called *Guidelines for Import Risk Analysis* which set out the methodologies available for the conduct of IRAs.<sup>56</sup> Apparently in response to the recommendation in the Senate Committee's interim report, the draft manual included a 'semi-quantitative' method for evaluating risk, a method that was to feature prominently in the analysis of the New Zealand request.<sup>57</sup>

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Zealand apple and pear importation; Urgent motion.

<sup>51</sup> Commonwealth of Australia, *Official Committee Hansard*, 2001; Senate Rural and Regional Affairs and Transport Legislation Committee; Reference: Import Risk Assessment on New Zealand Apples; , Canberra, Thursday, 5 April, p. 200

<sup>52</sup> Australian Apple and Pear Growers Association, 2001, 'The Big Crunch Day, March 14', ' Australia

<sup>53</sup> See Commonwealth of Australia, 2001, 'Fireblight – NZ apple ban to continue'; *Media Release; Hon Warren Truss MP; Minister for Agriculture, Fisheries and Forestry*, AFFA01/46WT, 14 March

<sup>54</sup> Commonwealth of Australia, 2001, 'The proposed importation of fresh apple fruit from New Zealand; Interim report', Senate Rural and Regional Affairs and Transport Legislation Committee, Canberra, July, paras. 16.27 – 16.30 and recommendation 4 (p. 203).

<sup>55</sup> *Ibid*, paras. 16.44 – 16.49 and recommendation 6 (pp. 205-6)

<sup>56</sup> Biosecurity Australia, 2001, 'Review of the Import risk analysis process', *Plant Biosecurity Policy Memorandum 2001/26*, , Department of Agriculture, Fisheries and Forestry, Canberra, 28 September

<sup>57</sup> Biosecurity Australia, 2001, 'Draft Guidelines for Import Risk Analysis', , Department of Agriculture, Fisheries and Forestry, Canberra, September, p. 83

On 8 October 2001, the investigatory process underwent a further change with the announcement by Biosecurity Australia that it would establish a 'Risk Analysis Panel or RAP'<sup>58</sup> to complete the risk analysis process.<sup>59</sup>

This again seems to have been in response to an interim recommendation of the Senate Committee.<sup>60</sup>

In January 2002, Biosecurity Australia announced that in response to an appeal by a stakeholder it was including an apple grower on the 'risk analysis panel', reportedly so that the Panel would gain expertise on 'industry processes and trading patterns'.<sup>61</sup> Panels operate by consensus. The Executive Manager of Biosecurity Australia acknowledged that making such an appointment could be seen to compromise the independence of the panel and that this could be 'a potential issue.'<sup>62</sup>

## **7. Resumption of Biosecurity Australia's investigation of New Zealand's fourth request**

The new Risk Analysis Panel (RAP) held its first meeting in January 2002. Its stated plan was to: (a) identify the issues, raised in response to the draft IRA, on which it would focus most of its efforts; (b) produce a 'scientific review paper' responding to all outstanding issues; (c) analyse the issues, taking into account the comments and advice received, and produce a revised draft IRA and distribute it for comment; and (d) continue the process as set out in the administrative framework for the IRA.<sup>63</sup>

While RAP's work was underway, in May 2002, the United States commenced proceedings in the WTO against Japan over SPS measures imposed by Japan on the importation of apples in respect of fire blight (*Japan – Apples*). Significantly, Australia was a third party to the dispute. In June 2003, the WTO Panel found in favour of the United States complaint, concluding that there was not sufficient scientific evidence that mature, symptomless apple fruit are likely to serve as a pathway for the entry establishment or spread of fire blight. The Panel's findings were upheld by the Appellate Body on 26 November 2003 and the rulings of the Panel and Appellate Body were adopted by the DSB on 10 December 2003. On 30 July 2004 the United States commenced compliance proceedings against Japan under Article 21.5 of the DSU. The

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<sup>58</sup> The RAP became the 'IRA team' in 2003 with the issuance of the revised *Import Risk Analysis Handbook*. See Biosecurity Australia, 2003, 'Import Risk Analysis Handbook', Department of Agriculture Fisheries and Forestry, Canberra, p.12

<sup>59</sup> Biosecurity Australia, 2001., 'Import risk analysis – apples from New Zealand', *Plant Biosecurity Policy Memorandum 2001/22*, 8 October, Department of Agriculture, Fisheries and Forestry, Canberra.

<sup>60</sup> Commonwealth of Australia, 2003, The proposed importation of fresh apple fruit from New Zealand; Government response to the recommendation of the Senate Rural and Regional Affairs and Transport Legislative Committee's interim report, *March*, Canberra, p. 7.

<sup>61</sup> Biosecurity Australia, 2002., 'Import risk analysis – apples from New Zealand', *Plant Biosecurity Policy Memorandum 2002/01*, , Department of Agriculture, Fisheries and Forestry, Canberra, 10 January

<sup>62</sup> ABC National Rural News, 2002, *Apple grower added to risk panel*, *Thursday*, 10 January

<sup>63</sup> Biosecurity Australia, 2002, 'Import risk analysis – apples from New Zealand', *Plant Biosecurity Policy Memorandum 2002/04*, , Department of Agriculture, Fisheries and Forestry, Canberra, 8 February

position of the United States was upheld by the Panel on 23 June 2005<sup>64</sup>. All of the determinations in this case were directly relevant to New Zealand's request for access in respect of apples to Australia.

Not until February 2004, some three months after the WTO Panel and Appellate Body's conclusions in the *WTO Japan – Apples*, case (and more than two years after the RAP was established), did Biosecurity Australia issue a Revised Draft IRA<sup>65</sup>. Although the analysis was more detailed, and the draft IRA included for the first time a semi-quantitative rather than a qualitative methodology for assessing risk, Australia still maintained that there was a risk of fire blight from the importation of apples into Australia and a consequent need for strict SPS measures. Remarkably, no mention was made in the draft of the conclusion of the WTO Panel and Appellate Body, a matter to which New Zealand drew attention in its comments to Australia on the draft IRA.<sup>66</sup>

## **8. Further Senate inquiry and more changes to Biosecurity Australia procedures**

In March 2004 the Senate Committee decided that, as a revised draft IRA had just been released, it should conclude its initial inquiry and commence a new one. The new inquiry would examine the Revised Draft IRA 2004 that had just been issued.<sup>67</sup>

In August 2004, Australia made some additional administrative changes. It established Biosecurity Australia as a separate business unit outside the agricultural market access area of the Department of Agriculture, Fisheries and Forestry. Further it established an 'Eminent Scientists Group' (ESG).<sup>68</sup> to review Draft IRA reports to ensure that they adequately considered all technical submissions received from stakeholders.

In October 2004, the Australian Minister of Agriculture announced that Biosecurity Australia would be established as a prescribed agency and would scientifically examine all IRAs currently under development (including the Revised Draft IRA 2004) and then

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<sup>64</sup> WTO, 2005, , 'Japan – Measures Affecting the Importation of Apples – Recourse to Article 21.5 of the DSU by the United States', Panel Report WT/DS245/RW, Geneva, 20 July

<sup>65</sup> Biosecurity Australia, 2004,; 'Revised draft import risk analysis report for apples from New Zealand', Plant Biosecurity Policy Memorandum 2004/03, Department of Agriculture, Fisheries and Forestry, Canberra, 19 February

<sup>66</sup> MAF Biosecurity Authority, 2004, *Comments by the Government of New Zealand on importation of apples from New Zealand, Revised draft IRA report*, , Ministry of Agriculture and Forestry, Wellington, February

<sup>67</sup> Commonwealth of Australia, 2004, 'The proposed importation of fresh apple fruit from New Zealand – Final Report'; Senate Rural and Regional Affairs and Transport Legislation Committee, Canberra, March, pp. 2-3

<sup>68</sup> Biosecurity Australia, 2004, 'New arrangements to strengthen import risk analysis', *Plant Biosecurity Policy Memorandum 2004/2*, Department of Agriculture, Fisheries and Forestry, Canberra, 16 August.

re-issue them for public comment and consultation. The Minister acknowledged '[t]hese changes may slow down some of the final decisions.'<sup>69</sup>

In March 2005, the Senate Committee issued its report on the importation of apples from New Zealand. It expressed concern about an approach that was based on permitting apples to be imported and took the view that producers needed to be confident that the conditions imposed would be actually met. The Committee also wanted more attention to be focused on the asserted economic consequences of a fire blight outbreak.<sup>70</sup>

## 9. Resumption of the investigation of New Zealand's fourth request

In December 2005, Biosecurity Australia issued its third draft IRA – the Revised Draft IRA 2005. It provided stakeholders with another four months to provide comments. The Revised Draft IRA 2005 again covered fire blight, European canker, apple leafcurling midge and leafrollers and included certain further pests that would require management measures if importation was to be made into Western Australia. It then set out an array of risk management measures for application if importation were to be permitted.<sup>71</sup>

New Zealand again submitted extensive comments, questioning assumptions made in the analysis and querying the validity of conclusions drawn, pointing out that the measures being imposed were neither necessary nor the least trade restrictive measures available.<sup>72</sup>

On 21 July 2006, Biosecurity Australia asked the ESG to review the Draft Final IRA. The ESG's assessment delivered in October 2006 was less than one page long, and simply stated that Biosecurity Australia's IRA team had properly considered the submissions received from stakeholders on the revised draft IRA report.<sup>73</sup>

On 8 November 2006, Biosecurity Australia announced that the Draft Final IRA had been reviewed by the ESG and that it was now preparing the Final IRA report and policy recommendations, taking into account the ESG report.<sup>74</sup>

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<sup>69</sup> Minister of Agriculture, Fisheries and Forestry, 2004, 'Science will decide NZ apple request', *Media release DAFF04/292WT*, Minister of Agriculture, Fisheries and Forestry, Canberra, – 13 October

<sup>70</sup> Commonwealth of Australia, 2005, 'Administration of Biosecurity Australia – Revised draft import risk analysis for apples from New Zealand', March, Senate Rural and Regional Affairs and Transport Legislation Committee, Canberra

<sup>71</sup> Biosecurity Australia, 2005, 'Revised draft import risk analysis report for apples from New Zealand', *Biosecurity Australia Policy Memorandum 2005/201* Canberra, December.

<sup>72</sup> MAF Biosecurity New Zealand, 2005, *Comments by the Government of New Zealand on Biosecurity Australia's revised draft import risk analysis report for apples from New Zealand*, December Ministry of Agriculture and Forestry, Wellington.

<sup>73</sup> Eminent Scientists Group 2006, 'Report of the Eminent Scientists Group on the import risk analysis of apples from New Zealand to the Director of Animal and Plant Quarantine' 2006, Eminent Scientists Group, October, p. 2

<sup>74</sup> Biosecurity Australia, 2006, 'Apple import risk analysis update', *Biosecurity Australia Policy Memorandum 2006/34*, Canberra, 8 November



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On 30 November 2006, almost eight years after New Zealand's fourth request, the Final IRA was released.<sup>75</sup> The New Zealand Minister of Agriculture wrote to his Australian counterpart, on 20 December 2006, the conditions for access 'do not appear to have materially changed, and if anything appear to have been made more stringent.'<sup>76</sup>

The IRA was confirmed in March 2007 when the Australian Director of Animal and Plant Quarantine determined that the importation of apples from New Zealand could be permitted 'subject to the *Quarantine Act 1908*, and the application of phytosanitary measures as specified in the *Final import risk analysis report for apples from New Zealand*, November 2006.'<sup>77</sup>

The Final IRA required New Zealand to prepare a documented standard operating procedure (SOP) or manual that describes the phytosanitary procedures for each of the pests of quarantine concern and the responsibilities of the parties.

Discussions between the two countries on the work plan and SOP took place between March and June 2007. In fact the document was concluded but Australia avoided signing it in the face of the forthcoming federal elections. Subsequently, in January/February 2008, there was further discussion of a draft SOP. In April and June 2008, Australia proposed concluding the SOP as a tactical move some months after the WTO action had commenced, but no further related discussions took place.

### 10. The WTO complaint

New Zealand had begun its WTO action in mid-2007.<sup>78</sup> By 2008 this had progressed to the Panel stage.<sup>79</sup>

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<sup>75</sup> Biosecurity Australia, 2006, 'Final import risk analysis report for apples from New Zealand, Part B', Biosecurity Australia. Canberra See also Biosecurity Australia 'Release of final import risk analysis report for apples from New Zealand', *Biosecurity Australia Policy Memorandum 2006/3730* November, Canberra

<sup>76</sup> Letter from Hon Jim Anderton to Hon Peter McGauran, 20 December 2006. Mr Anderton was then the New Zealand Government Minister with responsibility for Agriculture and Biosecurity. Mr McGauran was then the Australian Federal Minister for Agriculture, Fisheries and Forestry

<sup>77</sup> Biosecurity Australia, 2007, 'Biosecurity Policy Determination – Importation of Apples from New Zealand,' *Biosecurity Australia Policy Memorandum 2007/0727*, Canberra, March.

<sup>78</sup> WTO, 2007, 'Australia – Measures Affecting the Importation of Apples from New Zealand, Request for the Establishment of a Panel by New Zealand', Document WT/DS367/5, Geneva, 7 December

<sup>79</sup> WTO, 2008, 'Australia - Measures Affecting the Importation of Apples from New Zealand. Constitution of the Panel Established at the Request of New Zealand' Document WT/DS367/6, 13 March, Geneva,.

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## ATTACHMENT 2

### THE SALMON CASE

This Attachment outlines the facts surrounding the WTO case against Australian quarantine measures restricting the import of salmon, and the pattern of imports that followed. The case, which was brought by Canada in 1994, ended in 2000 after a series of embarrassing judgements against Australia.

Australia had first placed import restrictions on salmonid product in June 1975. In particular, the import of fresh, frozen or chilled salmon was prohibited.

AQIS released a discussion paper on wild ocean-caught salmon in 1989. In 1992, it commissioned BRS to do a comprehensive study on Aquatic Animal Quarantine in Australia.

Canada requested consultations in GATT in January 1994. The consultations were held in March.

In December 1994, a preliminary draft import risk analysis was sent by AQIS to North American and local interests. In May 1995 a Draft IRA paper was published. Over 170 submissions were received. A revised one was released in May 1996. It attracted 34 submissions. A Final IRA paper in December recommended the existing ban on uncooked salmon be maintained.

In March 1997, Canada challenged the decision in WTO and requested a WTO dispute panel. In June 1998, the Panel found Australia in breach of certain obligations under the SPS agreement. In July, both Canada and Australia appealed and in October the WTO Appellate Body upheld some of both, but in November the WTO Dispute Settlement body found Australia was still in breach.

On 27 November 1998, Australia began a generic IRA on all 'non-viable' sources of salmon. On 24 December, Canada asked for a binding arbitration on the period Australia would be allowed to comply with the WTO findings. In February 1998, the WTO arbitrator gave Australia until 6 July to address its obligations.

In the event, Australia delayed its decision until 19 July. The decision was to retain a ban on salmon not in consumer-ready packs (defined as head-off, gilled and gutted fish for direct retail sale, or for processing under controlled circumstances) and to tighten the restrictions on ornamental fish and non-viable marine fin-fish somewhat.

In WTO, at Canada's request, a dispute panel was established on 28 July 1999 to look at the new measures and in February 2000 it found that one of the 11 import limitations were more restrictive than was necessary to meet Australia's appropriate level of

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protection (and that Tasmania's ban on imported salmon, which had been imposed in July 1999) was inconsistent with the SPS Agreement).

On 17 May, in a manner acceptable to Canada, the weight criterion on consumer-ready packs (pieces less than 450grams) was dropped.

The case was embarrassing and administratively expensive, but as Gascoine (2000) observed, 'No change of Australia's quarantine policy framework or approach was brought about by the WTO proceedings, and we are satisfied that Australia's appropriate level of protection is being maintained by the measures now in place'.

In the months immediately after the changes agreed with Canada in May 2000, not much extra was imported. For instance, when Gascoine reviewed the experience in October 2000, he reported that 'only about 200 tonnes of salmon had been imported, most of it from New Zealand'.

Since 2000, salmon imports have increased and salmon consumers have benefited. In brief, salmon prices have dropped significantly in real terms and imports have increased five to ten times. The range of sources has increased.

Before the event, the Australian Bureau of Agricultural and Resource Economics (ABARE) produced a number of papers on likely impacts. One, for example, in 1998 judged that the new rules and imports of New Zealand salmon in particular (which apparently the local industry feared most) would not do much harm to the local salmon industry and would not deliver very large benefits to consumers. The Productivity Commission reached similar findings. That has proved to be true – the local industry has turned its attention to producing a high quality product which is mostly sent overseas to markets like Singapore.

A problem not discussed in the writings we have seen on the subject is that the new arrangements appear to have emanated primarily as a bilateral agreement between Australia and Canada rather than as a multilateral deal. Amongst potential foreign sources of salmon, Canada was the initial protagonist and appeared to make the running, presumably because that is the way the WTO dispute mechanism works. A question remaining is whether the outcome resembles what would be a genuinely multilateral solution in which defective elements of the Australian regime that were affecting imports from all sources were remedied. Even if any concessions gained by the main negotiating parties are required to become available to all 'most favoured nation' (MFN) countries, from its own narrow perspective, when choosing what particular restrictions to complain about, Canada would have had no interest in making access to Australia any easier for other salmon exporting countries. If the outcome was not genuinely MFN in nature, Australian and world welfare will have been compromised to some extent.

Generally speaking, the products entering world trade are becoming more differentiated, a trend that reflects the continual process of technological innovation and consumers expressing ever-more-discriminating demand as incomes rise. It is something which

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underlines the importance for world welfare of ensuring that trade agreements have broad country coverage. The differentiation trend is evident in the pattern of trade that has emerged with salmon. The United States participated in the WTO case but appears not to have been a significant exporter to Australia since then. New Zealand by contrast, which did not play much of a role, has become an important supplier to the Australian market. Denmark has been a consistent supplier throughout.

ABS import data collated by ABARE are as follows.

| Year      | Product              | Tonnes | Value (A\$'000 fob) | Unit value ('000/t.) |
|-----------|----------------------|--------|---------------------|----------------------|
|           | Salmon, frozen whole |        |                     |                      |
| 1996-97   |                      | 25     | 431                 | 17.24                |
| 1997-98   |                      | 36     | 579                 | 16.08                |
| 1998-99   |                      | 5      | 119                 | 23.80                |
| 1999-2000 |                      | 133    | 255                 | 19.17                |
|           |                      | 199    | 1384                | 6.95                 |
|           |                      |        |                     |                      |
| 2000-01   |                      | 28     | 150                 | 5.36                 |
| 2001-02   |                      | 81     | 232                 | 2.86                 |
| 2002-03   |                      | 310    | 819                 | 2.64                 |
| 2003-04   |                      | 144    | 1092                | 7.58                 |
| 2004-05   |                      | 135    | 918                 | 6.80                 |
| 2005-06   |                      | 258    | 687                 | 2.66                 |
| 2006-07   |                      | 445    | 949                 | 2.13                 |
|           |                      | 1401   | 4847                | 3.46                 |

Australia's quarantine mess - the case of NZ apples

| Year      | Product        | Tonnes | Value (A\$'000 fob) | Unit value (A\$'000/t.) |
|-----------|----------------|--------|---------------------|-------------------------|
|           | Salmon, smoked |        |                     |                         |
| 1996-97   |                | 187    | 3293                | 17.61                   |
| 1997-98   |                | 196    | 2969                | 15.15                   |
| 1998-99   |                | 272    | 4292                | 15.78                   |
| 1999-2000 |                | 412    | 6530                | 15.85                   |
|           |                | 1067   | 17084               | 16.01                   |
|           |                |        |                     |                         |
| 2000-01   |                | 596    | 7863                | 13.19                   |
| 2001-02   |                | 347    | 5890                | 16.97                   |
| 2002-03   |                | 623    | 10810               | 17.35                   |
| 2003-04   |                | 988    | 16108               | 16.30                   |
| 2004-05   |                | 1158   | 19522               | 16.86                   |
| 2005-06   |                | 1116   | 19691               | 17.64                   |
| 2006-07   |                | 1599   | 30953               | 19.38                   |
|           |                | 6427   | 110837              | 17.24                   |

| Year      | Product                  | Tonnes | Value (A\$'000 fob) | Unit value (A\$'000/t.) |
|-----------|--------------------------|--------|---------------------|-------------------------|
|           | Salmon, fresh or chilled |        |                     |                         |
| 1996-97   |                          | 0      | 0                   | -                       |
| 1997-98   |                          | 0      | 9                   | -                       |
| 1998-99   |                          | 0      | 0                   | -                       |
| 1999-2000 |                          | 77     | 734                 | 9.53                    |
|           |                          | 77     | 734                 | 9.53                    |
|           |                          |        |                     |                         |
| 2000-01   |                          | 220    | 1824                | 8.29                    |
| 2001-02   |                          | 420    | 3041                | 7.24                    |
| 2002-03   |                          | 359    | 2518                | 7.01                    |
| 2003-04   |                          | 557    | 4443                | 7.98                    |
| 2004-05   |                          | 476    | 3834                | 8.05                    |
| 2005-06   |                          | 483    | 3712                | 7.69                    |
| 2006-07   |                          | 719    | 6148                | 8.55                    |
|           |                          | 3234   | 25520               | 7.89                    |

Australia's quarantine mess - the case of NZ apples

| Year      | Product                        | Tonnes | Value (A\$'000 fob) | Unit value (A\$'000/t.) |
|-----------|--------------------------------|--------|---------------------|-------------------------|
|           | Salmon, total excluding canned |        |                     |                         |
| 1996-97   |                                | 212    | 3725                | 17.57                   |
| 1997-98   |                                | 233    | 3556                | 15.26                   |
| 1998-99   |                                | 278    | 4411                | 15.87                   |
| 1999-2000 |                                | 622    | 7519                | 15.85                   |
|           |                                | 1345   | 19211               | 14.28                   |
|           |                                |        |                     |                         |
| 2000-01   |                                | 596    | 7863                | 13.19                   |
| 2001-02   |                                | 1079   | 13848               | 12.83                   |
| 2002-03   |                                | 1291   | 14148               | 10.96                   |
| 2003-04   |                                | 1689   | 21644               | 12.81                   |
| 2004-05   |                                | 1769   | 24274               | 13.72                   |
| 2005-06   |                                | 1857   | 24090               | 12.97                   |
| 2006-07   |                                | 2763   | 38050               | 13.77                   |
|           |                                | 11044  | 143917              | 13.03                   |

| Year      | Product                        | Tonnes | Value (A\$'000 fob) | Unit value (A\$'000/t.) |
|-----------|--------------------------------|--------|---------------------|-------------------------|
|           | Salmon, total excluding canned |        |                     |                         |
| 1996-97   |                                | 212    | 3725                | 17.57                   |
| 1997-98   |                                | 233    | 3556                | 15.26                   |
| 1998-99   |                                | 278    | 4411                | 15.87                   |
| 1999-2000 |                                | 622    | 7519                | 15.85                   |
|           |                                | 1345   | 19211               | 14.28                   |
|           |                                |        |                     |                         |
| 2000-01   |                                | 596    | 7863                | 13.19                   |
| 2001-02   |                                | 1079   | 13848               | 12.83                   |
| 2002-03   |                                | 1291   | 14148               | 10.96                   |
| 2003-04   |                                | 1689   | 21644               | 12.81                   |
| 2004-05   |                                | 1769   | 24274               | 13.72                   |
| 2005-06   |                                | 1857   | 24090               | 12.97                   |
| 2006-07   |                                | 2763   | 38050               | 13.77                   |
|           |                                | 11044  | 143917              | 13.03                   |

Australia's quarantine mess - the case of NZ apples

| Year      | Product   | Tonnes | Value (A\$'000 fob) | Unit value (A\$'000/t.) |
|-----------|---|--------|---------------------|-------------------------|
|           | Edible fish by source, Salmon, not canned Canada, |        |                     |                         |
| 1996-97   |   | 14     | 226                 | 16.14                   |
| 1997-98   |   | 12     | 176                 | 14.67                   |
| 1998-99   |   | 21     | 294                 | 14                      |
| 1999-2000 |   | 0      | 3                   | -                       |
|           |   | 47     | 699                 | 14.87                   |
|           |   |        |                     |                         |
| 2000-01   |   | 0      | 2                   | -                       |
| 2001-02   |   | 0      | 1                   | -                       |
| 2002-03   |   | 48     | 113                 | 2.35                    |
| 2003-04   |   | 0      | 1                   | -                       |
| 2004-05   |   | 24     | 51                  | 2.13                    |
| 2005-06   |   | 72     | 168                 | 2.33                    |

| Year      | Product  | Tonnes | Value (A\$'000 fob) | Unit value (A\$'000/t.) |
|-----------|--|--------|---------------------|-------------------------|
|           | Edible fish by source, Salmon, not canned New Zealand, |        |                     |                         |
| 1996-97   |  |        |                     |                         |
| 1997-98   |  |        |                     |                         |
| 1998-99   |  | 40     | 757                 | 18.93                   |
| 1999-2000 |  | 247    | 1678                | 6.79                    |
|           |  | 287    | 2435                | 8.48                    |
|           |  |        |                     |                         |
| 2000-01   |  | 270    | 2454                | 9.09                    |
| 2001-02   |  | 466    | 3763                | 8.08                    |
| 2002-03   |  | 392    | 3168                | 8.08                    |
| 2003-04   |  | 548    | 4857                | 8.86                    |
| 2004-05   |  | 447    | 3971                | 8.88                    |
| 2005-06   |  | 544    | 4726                | 8.69                    |
| 2006-07   |  | 835    | 8530                | 10.22                   |
|           |  | 3502   | 31469               | 8.99                    |



Australia's quarantine mess - the case of NZ apples

| Year      | Product  | Tonnes | Value (A\$'000 fob) | Unit value (A\$'000/t.) |
|-----------|--|--------|---------------------|-------------------------|
|           | Edible fish by source, Salmon, not canned Denmark, |        |                     |                         |
| 1996-97   |  | 136    | 2115                | 15.55                   |
| 1997-98   |  | 163    | 2411                | 14.79                   |
| 1998-99   |  | 136    | 2154                | 15.84                   |
| 1999-2000 |  | 325    | 5238                | 16.12                   |
|           |  | 760    | 11918               | 15.68                   |
|           |  |        |                     |                         |
| 2000-01   |  | 290    | 4862                | 16.77                   |
| 2001-02   |  | 510    | 9483                | 18.59                   |
| 2002-03   |  | 557    | 9707                | 17.43                   |
| 2003-04   |  | 829    | 13779               | 16.62                   |
| 2004-05   |  | 860    | 15612               | 18.15                   |
| 2005-06   |  | 763    | 14240               | 18.66                   |
| 2006-07   |  | 946    | 19757               | 20.88                   |
|           |  | 4755   | 87440               | 18.39                   |

## Australia's quarantine mess - the case of NZ apples

## ATTACHMENT 3

### EFFICIENCY OF THE AUSTRALIAN APPLE INDUSTRY AND ASSISTANCE MEASUREMENT

#### Introduction

Measures that restrict imports assist domestic producers by reducing competition and thereby raising prices, which in turn increase their incomes. However, to the extent that the economy's resources are encouraged to move out of other, more lowly assisted activities, the assistance granted to a highly assisted industry also potentially imposes a deadweight loss on the Australian economy, since in response to the protective structure resources are moved away from their most productive use. Thus, the economy's total productivity is reduced. Consumers are also penalised by having to pay higher prices for domestically produced goods. In this way, the protective measures tax consumers, and often do so regressively when the protection is applied to staple items, such as food and clothing. The protection also decreases the amount that consumers have to spend on other goods and services, thus penalising other producers and suppliers in the community.

The assistance implications of quarantine measures are well documented, both in Australia and internationally. In Australia, such assistance is covered by the definition in the 1998 Productivity Commission Act, which defines industry assistance as '... any act that, directly or indirectly, assists a person to carry on a business or activity, or confers a pecuniary benefit on, or results in a pecuniary benefit accruing to, a person in respect of carrying on a business or activity.' Accordingly, the Productivity Commission has acknowledged the assistance implications of Australian quarantine measures but to date has not incorporated this form of assistance into its regular measurement and reporting of assistance levels afforded Australian industries. While this is not the only form of assistance not routinely measured by the Commission (another example is anti-dumping provisions), it is desirable that the reporting of assistance estimates continues to be widened to embrace all important forms, and extending the coverage to quarantine protection is arguably a priority.

#### Efficiency of the Australian apple industry

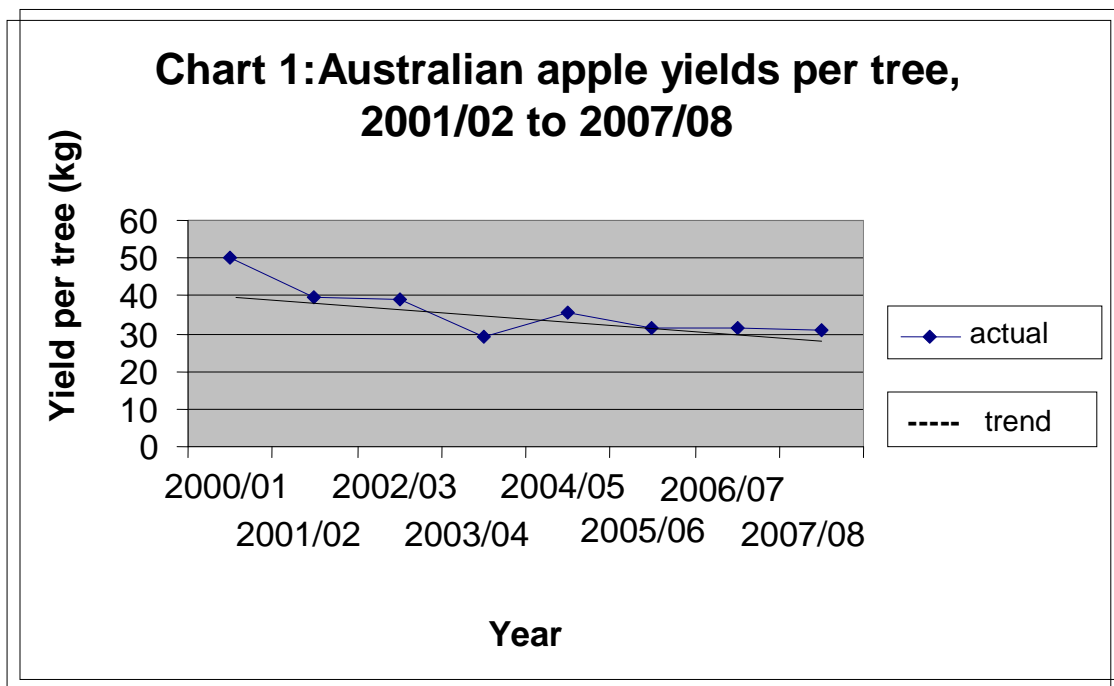
Economic efficiency is what determines the international competitiveness of an activity or product and its contribution to the nation's productivity. Australian national welfare will be enhanced by having its resources allocated to activities with the highest economic efficiency. Economic efficiency differs from technical efficiency. Economic efficiency is affected by technical efficiency but is mainly determined by other factors, such as the prices of outputs and inputs. Consequently, activities that are technically efficient are not necessarily economically efficient and vice versa.

The 'technical efficiency' of growing apples is yield per unit of input. Ideally, if tracking the technical efficiency trend, or comparing it by location, one would want to look at the

## Australia's quarantine mess - the case of NZ apples

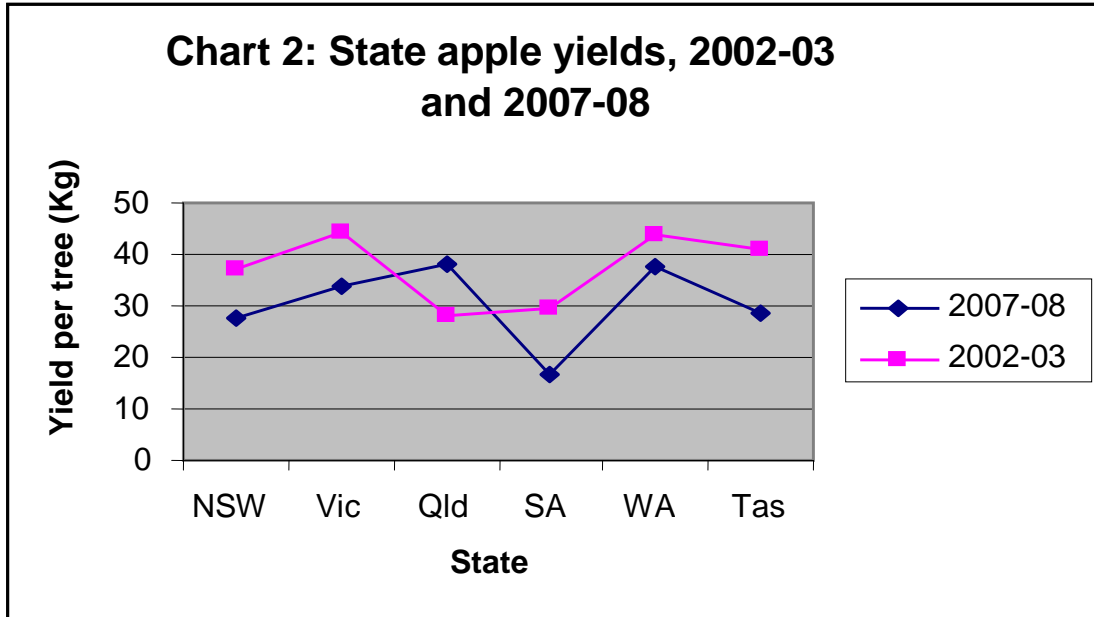
apple yield relative to the combination of inputs used (land, labour, capital, materials) to correct for differences in the availability and cost of different inputs (and thus in the combination of inputs used) from year to year, or place to place. But that is very challenging statistically. So partial productivity indicators are generally used as proxies. For example, with apples, technical efficiency is commonly expressed on a yield per tree or yield per hectare basis.

Recognising the limitations of such indicators, it is still interesting to observe that Australia's apple yield per tree nationally in 2007/08 was 30.6 kg, substantially down on 39.7 kg in 2001/02 (Chart 1).

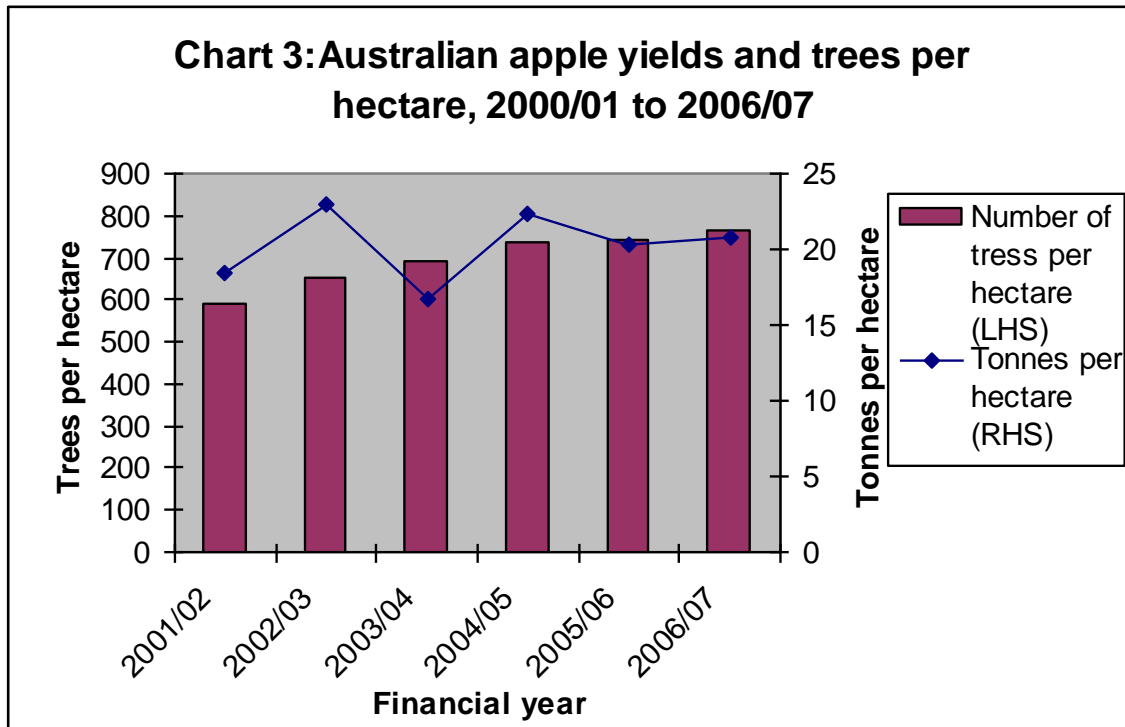


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There is substantial variation in yields per tree between States (Chart 2). Yields per tree in the two major producing states of, Victoria and to a lesser extent NSW which together accounted for 56% of output in 2007/08, have declined substantially and are well below those in Qld and WA. Moreover, yields in SA and Tasmania are low and have also declined. This could be taken to suggest that Australia's apple industry would become nationally more efficient if the industry was re-located from the traditional major growing states to Qld and WA, but that would require more research.



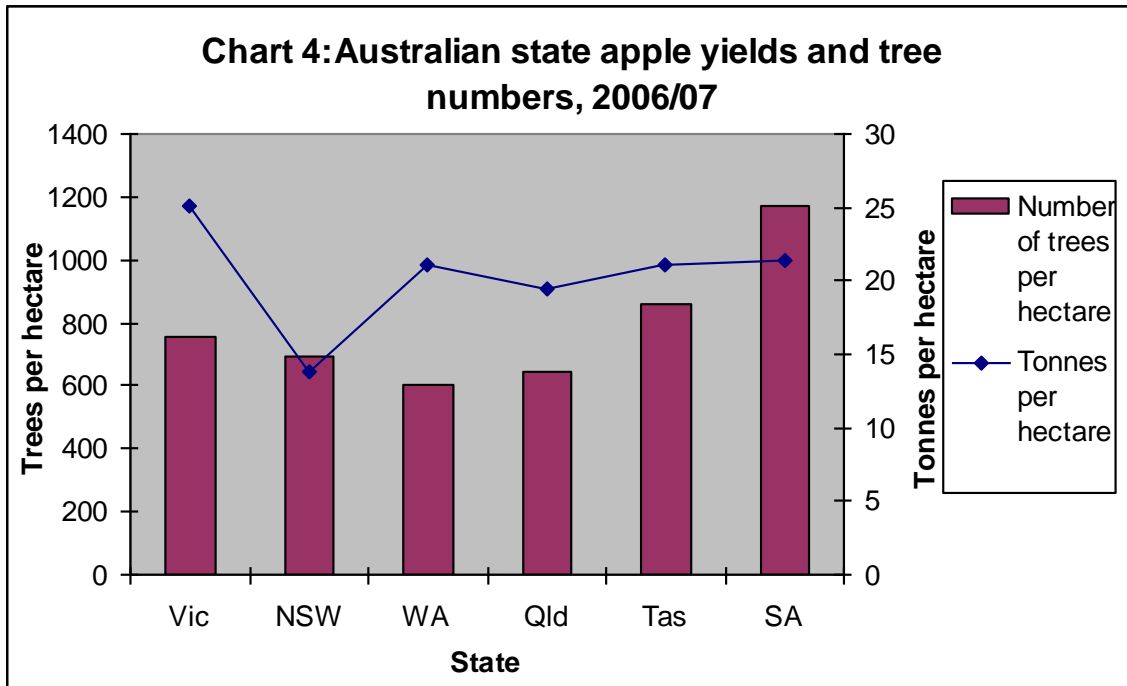
Since there is a trade-off between yields per tree and number of trees per hectare with larger type trees bearing more fruit, a better measure of apple technical production efficiency might be yield per hectare. Chart 3 shows that while the number of trees per hectare has grown yields per hectare have remained low.



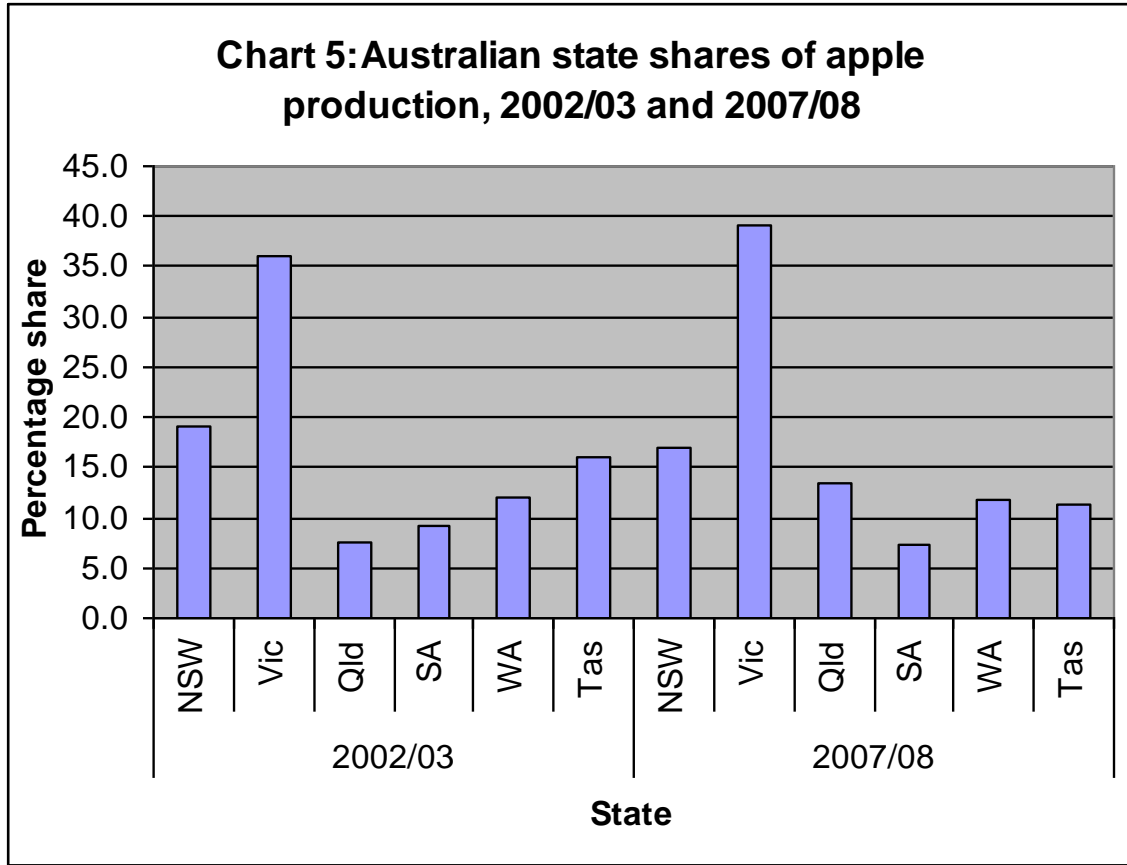
As with the other indicators, with per hectare yields there is substantial variation between the states, again pointing to scope for rationalising production between regions (Chart 4).

Australia's quarantine mess - the case of NZ apples

South Australia and to a lesser extent Tasmania have the highest yields per hectare, much higher than in the main producing states of Victoria and NSW.

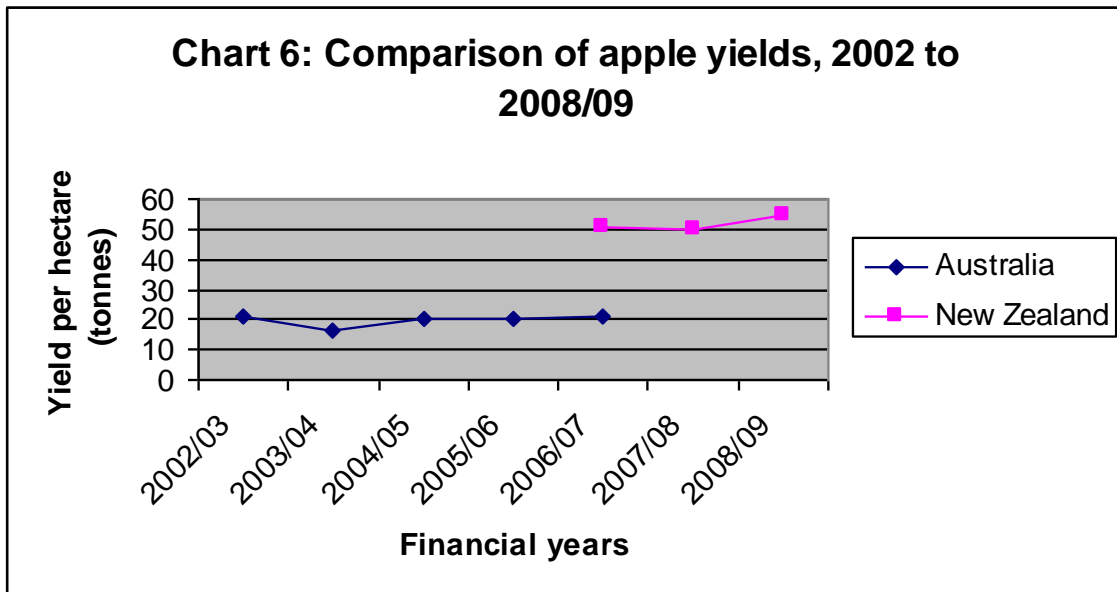


The industry has tended to expand relatively most in Victoria and to a lesser extent Queensland while contracting in Tasmania and to a lesser extent South Australia (Chart 5).

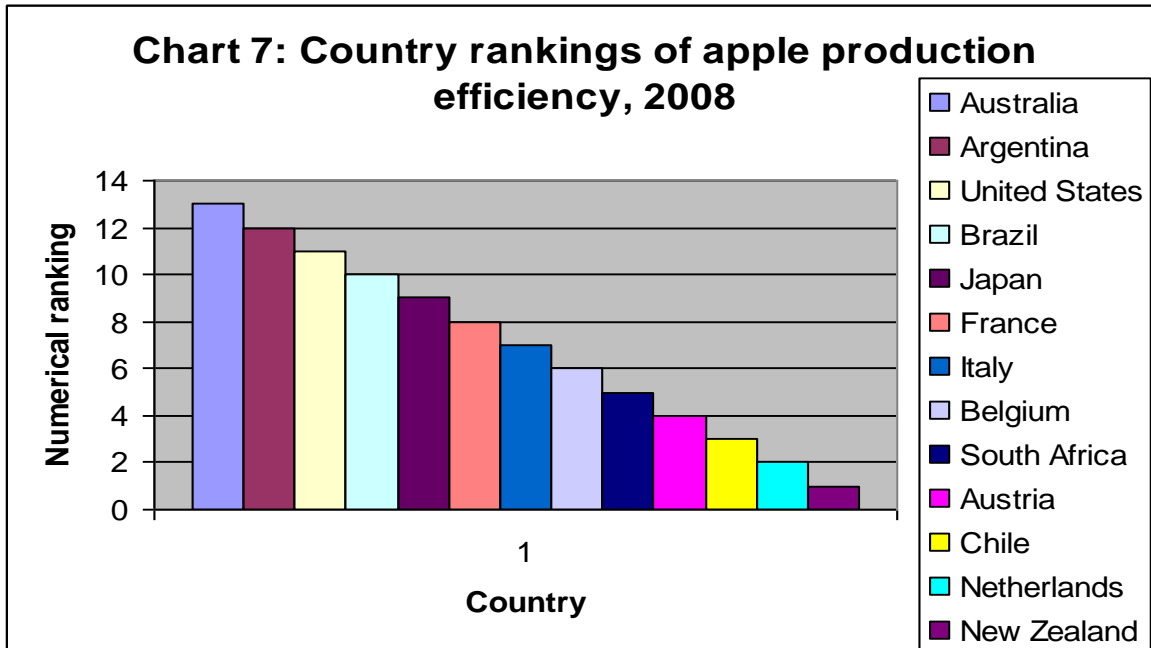


*International comparison*

Yields per hectare in Australia are well under half of New Zealand levels.

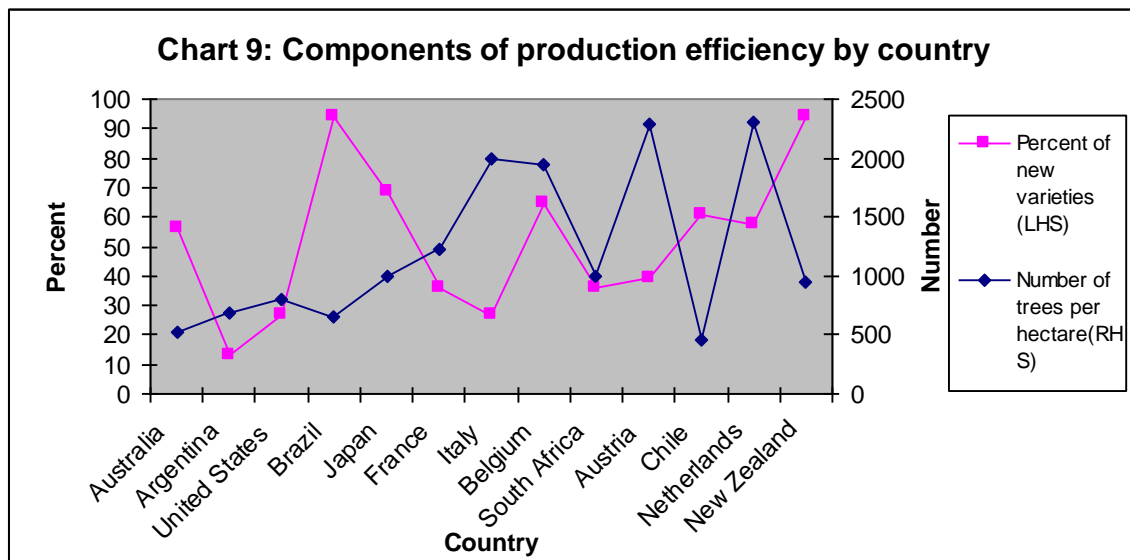
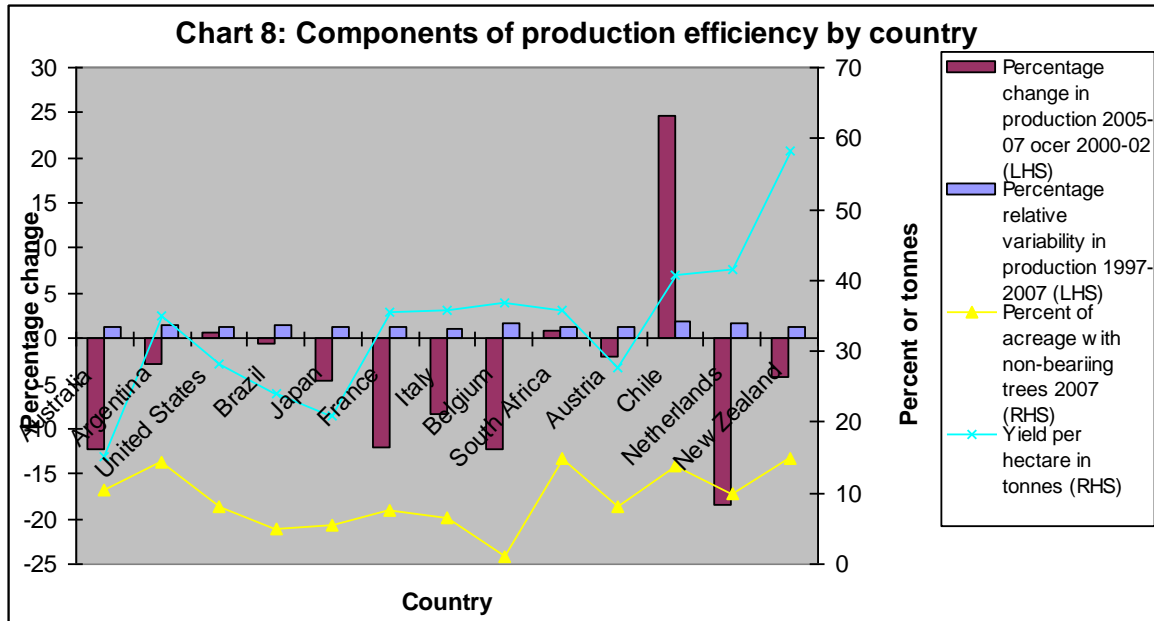


International country rankings of apple production efficiency are published annually in the World Apple Review. The latest rankings for 2008 are shown in Chart 7. On this basis, Australia is ranked 13<sup>th</sup> compared to New Zealand's top ranking. Other southern hemisphere countries ranked ahead of Australia are Chile (3<sup>rd</sup>), South Africa (5<sup>th</sup>), Brazil (10<sup>th</sup>), and Argentina (12<sup>th</sup>).



These production efficiencies in Chart 7 are based on an index made up of six components, namely recent percentage change in production (2005-07 over 2000-02), relative variability of production, per cent of acreage of non-bearing trees (2007), per cent of new varieties (2007), trees per hectare (2007), and yield per hectare (2005-07). Movements in the components of the index are shown for the above 13 countries in Charts 8 and 9.





These charts provide additional evidence that Australia does not have a physical environment well suited to growing apples. It has internationally a low yield per hectare, ranked 13<sup>th</sup> of the countries listed, while New Zealand is on top. Similarly on per cent of new varieties New Zealand leads the way with Brazil 7<sup>th</sup> out of these countries. On number of trees per hectare Australia also ranks lowly at 11<sup>th</sup> while New Zealand ranks 8<sup>th</sup>. Based on its analysis the World Apple Report classifies Australia, along with South Africa, Germany, Argentina, Brazil and China as ‘middleweights’ in preparedness to compete in 2008. Chile, New Zealand, Italy, US, France, Austria, Belgium, Netherlands, Japan and Canada, were listed as ‘heavyweights.’

## Australia's quarantine mess - the case of NZ apples

As indicated, number of trees per hectare is an important determinant of production efficiency. Many overseas apple industries are transitioning away from extensive to intensive plantings. This is the case in New Zealand where about 20 years ago the industry started replacing bigger trees on MM106 or MM793 rootstocks which took more space, averaging about 700 plantings per hectare, and typically yielded some 125 kg per tree with intensive plantings on M9 rootstock with a much higher density of from 2000 to 3500 trees per hectare. These trees yield 27 to 40 kg each. While the cost of planting is much higher, the trees begin bearing at a much younger age and can be more easily harvested. Although Australia is following this trend it seems that New Zealand is much more advanced in doing so.

**Table A3.1: Apple production costs in selected countries, 2004**

| Country               | Average production cost (Euro per kg) |
|-----------------------|---------------------------------------|
| Italy                 | 0.32                                  |
| France                | 0.30                                  |
| Germany               | 0.32                                  |
| US (Washington State) | 0.32                                  |
| Chile                 | 0.15                                  |
| Brazil                | 0.15                                  |
| China                 | 0.28                                  |
| Poland                | 0.14                                  |
| Australia             | 0.43 (or A\$0.73)                     |

*Source:* Victorian Department of Primary Industries, *Victorian Pome Fruit Industry Situation and Needs Analysis: In an Australian Context*, April 2007, p. 43

While these international rankings are partially determined by soil type, climate and access to resources, such as water and (cheap) labour, they largely reflect the domestic industry's ability to respond to global competitiveness pressures; other countries have improved their operations by raising production efficiencies, quality and marketing, resulting in lower production costs, and hence more competitive export prices than Australia (Table A3.1) above).<sup>80</sup> As the Victorian DPI study also concludes the 'high price of Australian pome fruit makes it extremely difficult to compete in the global commodity market and almost impossible if they are not willing to sacrifice high

<sup>80</sup> Victorian Department of Primary Industries, *Victorian Pome Fruit Industry Situation and Needs Analysis: In an Australian Context*, April 2007, p. 42.

domestic returns. To compete, the Australian pome fruit industry must improve supply chain efficiencies to lower pre- and post-harvest production costs and/or develop value-added products. In either scenario, the industry must become more outward in its outlook, as it is currently very vulnerable to import competition and is severely restricted by the capacity of the domestic market.<sup>81</sup>

*Links between assistance and economic efficiency*

Economic efficiency is closely linked to output prices, and is therefore frequently referred to as price efficiency. Thus, a comparison of Australian apple prices with international prices of world efficient exporters provides perhaps the best measure available of Australian economic efficiency. New Zealand is unquestionably one of the world's most efficient apple producers, exporting some 70% of production and one of the top ten global exporters in volume terms.

Such price comparisons, if done correctly, also are a good indicator of the extent of assistance provided to Australian growers by the quarantine measures. Price comparisons are the standard tool used by economists to try to measure assistance of non-tariff barriers, such as quarantine import controls. The tool, like most partial assistance measurement techniques, assumes that imports and domestically-produced goods (in this case apples) are perfect substitutes such that the 'theory of one price holds'. Another standard assumption, namely of a 'small country', assumes that the country in question (Australia in this case) is a price taker rather than a price maker on world markets, such that its imports of the good (apples) are so insignificant in world terms that it can import as much as requires without raising the international price. Thus, the model predicts that removing quarantine measures on imports of New Zealand and other apples would competitively force Australian producers to sell apples at world import prices or cease production. The model also sets the benchmark for assessing the Australian industry's economic efficiency at this price as it represents the 'shadow price' at which Australian apples would have to sell for without assistance, and hence the real value received by Australia of having its resources allocated to this activity.

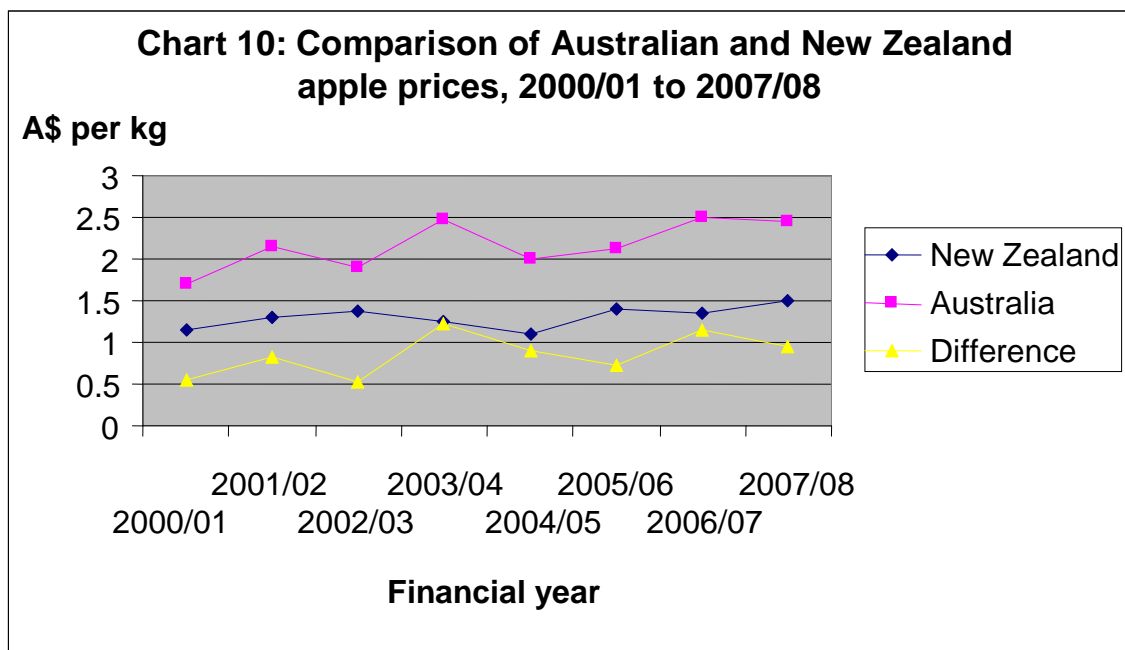
Price comparisons suggest that New Zealand apples landed in Australia would be offered at a much lower price than the prices that now prevail in Australia. Chart 3 below compares New Zealand notional landed prices with the prices that have recently been observed in Australia's major wholesale markets (Chart 10).<sup>82</sup> The landed prices have been estimated by adding to export fob prices an assumed cost for freight to east coast

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<sup>81</sup> Victorian Department of Primary Industries, *Victorian Pome Fruit Industry Situation and Needs Analysis: In an Australian Context*, April 2007, p. 43.

<sup>82</sup> New Zealand free-along-ship (FAS) prices were inflated by 10% and a flat amount of NZ\$0.28 per kg, and adjusted by the annual average exchange rate to derive the equivalent landed-duty free Australian price. New Zealand returns by variety were weighted by Australian production weights at both state and national levels to ensure as much as possible that the average New Zealand price was representative of Australian output patterns. Australian prices were averages of wholesale prices from Sydney, Melbourne and Brisbane markets (data supplied by Ausmarket Consultants).

ports and insurance. In summary, our estimates indicate that even looking at just New Zealand prices, apples could have been landed duty free in Australia at price advantages over Australian apples ranging from A\$0.56 to A\$1.22 per kg during the years 2000-01 to 2007-08.<sup>83</sup>



The price non-competitiveness or disadvantage that Australia suffers relative to New Zealand apples will come as no surprise to Australian producers or policy makers. For example, similar price data showing this was provided in Australia's initial submission in June 2008 to the WTO Panel case.<sup>84</sup> Moreover, the international non-competitiveness of Australian apples is acknowledged by the industry itself. Australian apple exports have fallen by 80% in recent years as Australia has lost competitiveness in major export markets, and India and the UK are the only current significant markets for Australian apples.<sup>85</sup> Exports to the UK are just a few containers a year. The Australian industry's Apple and Pear Industry Strategic Plan 2005-10 concedes that Australia is not price competitive with other southern hemisphere producers.<sup>86</sup> It explains that 'production efficiency is low compared to world standards', and that this 'results in non-competitive apple and pear exports' (p. 5). According to the industry itself, non-competitive labour costs (which account for 70% of farm costs), low labour productivity and poor worker availability are the main challenges to its efficiency (p. 5).

<sup>83</sup> In Chart 10 landed duty free prices of imported New Zealand apples in Australia are compared with Eastern metropolitan wholesale market prices. The underlying proposition is that imports would be mainly taken from wharf to metropolitan retail markets, competing with domestic fruit sold at the metropolitan wholesale markets in Sydney Melbourne and Brisbane.

<sup>84</sup> DFAT, *Australia's First Written Submission to the WTO Panel Case*, 18 July 2008, Figure 1, p. 119.

<sup>85</sup> Apple and Pear Australia Ltd, *Apple and Pear Industry Report 07/08*, p.11 [viewed at: <http://www.apal.org.au/docs/2007-2008-Industry-report.pdf>].

<sup>86</sup> Apple and Pear Australia Ltd, *Apple and Pear Industry Strategic Plan 2005-10*, p.5 [viewed at: [http://www.horticulture.com.au/librarymanager/libs/130/Apple\\_and\\_Pear\\_Annual\\_Industry\\_Report\\_0708\(1\).pdf](http://www.horticulture.com.au/librarymanager/libs/130/Apple_and_Pear_Annual_Industry_Report_0708(1).pdf)].

The industry's declining competitiveness has been both hastened and masked by protective measures prohibiting imports purportedly for SPS reasons. While ever the industry is sheltered from import competition it has no incentive to improve efficiency, and its situation offers little export potential. Developing an efficient export industry would first and foremost require the local product to be competitive in Australia against imports; if producers cannot compete against imports at home they will have little chance of being able to penetrate export markets. Thus, opening the Australian apple and pear industries to competitive imports would significantly improve their capacity to become competitive. Hiding behind quarantine measures to obtain protection has been a two-edged sword for the industry. This is so often the case with protection, and examples abound, such as the history in Australia of textiles and clothing, and motor vehicles. While quarantine measures have protected grower returns it has also stifled competition, thereby condemning the industry to becoming non-competitive and selling predominantly on the domestic market with declining export potential. The industry has acknowledged this in its statement that: 'production efficiency has been masked in a largely protected domestic market..., and while [the protection] has benefited the industry and enabled retention of sustainable profit margins, it has hampered the adoption of more cost-effective production techniques.'<sup>87</sup>

The Victorian Government has also expressed concerns over the competitiveness of the Australian apple (and pear) industry. The Victorian Department of Primary Industries has observed that 'Australian growers have been able to concentrate their efforts on the domestic market as it is largely protected from apple and pear imports. Consequently, Australian growers have a monopoly over the market and have been able to demand premium prices for their fruit that they would not necessarily attain in export markets. While this has no doubt helped to protect the livelihoods of a large number of Australian growers, it has come at a cost in terms of export market activity and grower returns. The Australian domestic industry is very vulnerable to import competition, especially from low cost suppliers such as China.'<sup>88</sup> In addition, it notes that 'most Australian growers are not committed to the export market and pursue spot prices, exporting only when there is domestic oversupply (of fresh fruit) and/or when foreign exchange rates are favourable. They are inclined to relinquish their export contracts to obtain premium domestic market prices and as a result they often lose export market share to their competitors who are more committed to the export market.'<sup>89</sup>

## **Assistance to Australian pome production**

### **Apples**

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<sup>87</sup> Apple and Pear Australia Ltd, *Apple and Pear Industry Strategic Plan 2005-10*, p.5 [viewed at: [http://www.horticulture.com.au/librarymanager/libs/130/Apple\\_and\\_Pear\\_Annual\\_Industry\\_Report\\_0708\(1\).pdf](http://www.horticulture.com.au/librarymanager/libs/130/Apple_and_Pear_Annual_Industry_Report_0708(1).pdf)].

<sup>88</sup> Victorian Department of Primary Industries, 2007, *Victorian Pome Fruit Industry Situation and Needs Analysis: In an Australian Context*, April, p. 25.

<sup>89</sup> Victorian Department of Primary Industries, *op cit*, p. 28.

## Australia's quarantine mess - the case of NZ apples

From the price comparisons between Australian and imported New Zealand apples shown in the above charts, standard assistance estimates of the type used by the Productivity Commission to report and monitor industry assistance levels in Australia can be derived. These are:

- the price distortion created by the quarantine intervention, expressed as the percentage increase in domestic price that results relative to the price that would otherwise prevail (ie. import parity of apples landed from New Zealand)<sup>90</sup>;
- the nominal rate of assistance, or the percentage increase in producer's gross returns from the assistance structure – in the absence of other forms of assistance, this will equal the price distortion;
- gross subsidy equivalent, or the annual dollar value of gross assistance provided by the nominal rate of assistance (and in this case the price distortion). It is a measure of the annual income transfers from consumers to producers from higher prices;
- effective rate of protection, or the percentage increase in value added (i.e. the returns to value adding factors) provided by the assistance structure. Unlike the nominal rate of assistance on output which measures gross assistance, the effective rate measures net assistance by including the impacts on producers of any assistance on their material inputs. As a net assistance measure to the production activity, the effective rate is a better indicator of industry assistance levels and of the extent to which the incentive structure, and hence resource allocation on the production side, is distorted by the assistance structure; and
- net subsidy equivalent, or the annual dollar of net assistance provided by the effective rate. It is equal to the gross subsidy equivalent less the extent to which penalties are borne by producers in the form of higher prices on inputs due to assistance to other industries, or the reverse if subsidies apply.

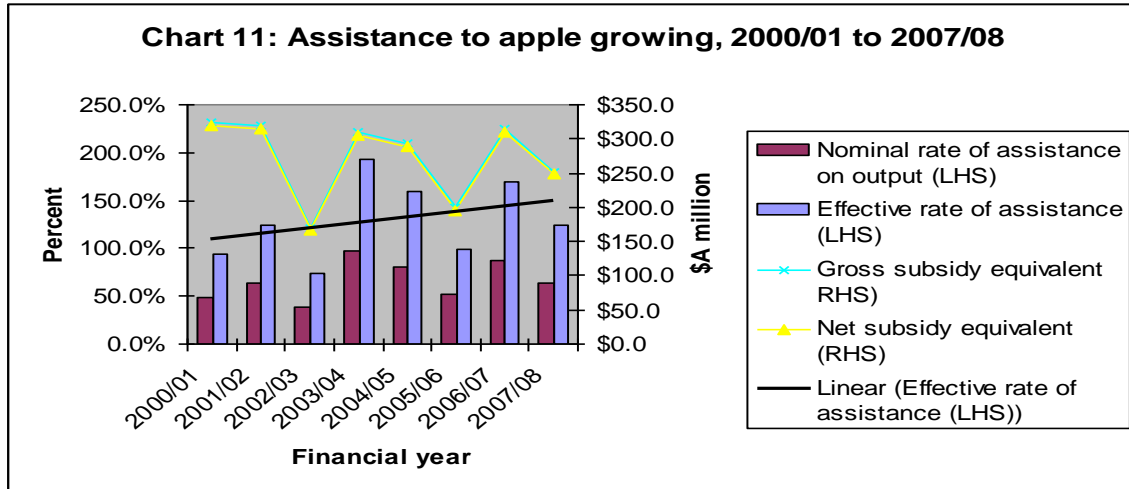
Our estimates reveal that apple growing in Australia is highly assisted by quarantine import restrictions, and hence also heavily assisted (Chart 11). During the period 2001/02 to 2007/08, effective assistance ranged from 73% to 192%, and has trended upwards. Such assistance imposes heavy costs on Australian consumers through higher prices ranging from 38% to 98%. In total over this 6 year period, consumers have transferred to producers more than A\$2 billion in today's money, averaging some A\$250 million annually. The huge advantage that this assistance represents is highlighted when it is compared with assistance levels across other sectors measured by the Productivity Commission, which indicate that average effective rates for Australian manufacturing and agricultural sectors have been well below double digit levels for many years. In other words, while most Australian manufacturing and agricultural activities have had to face the economic challenges of reduced assistance and exposure to international competition, apple growers have been selectively treated by being sheltered from import competition.<sup>91</sup>

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<sup>90</sup> As explained in the last section of this paper, this is not meant to imply that imports from New Zealand alone would necessarily be sufficient to reduce Australian apple prices to these levels, at least in the short run.

<sup>91</sup> Productivity Commission, *Trade and Assistance Review 2006-07*, March 2008 [viewed at: <http://www.pc.gov.au/annualreports/trade-assistance/tar0607/tar0607.pdf>].

It should also be remembered that New Zealand is not a source of cheap nasty apples. Kiwi apples attract a substantial premium over fruit grown in some other countries because of their perceived superior quality.<sup>92</sup> Most southern hemisphere apple production is exported.<sup>93</sup>



## Pears

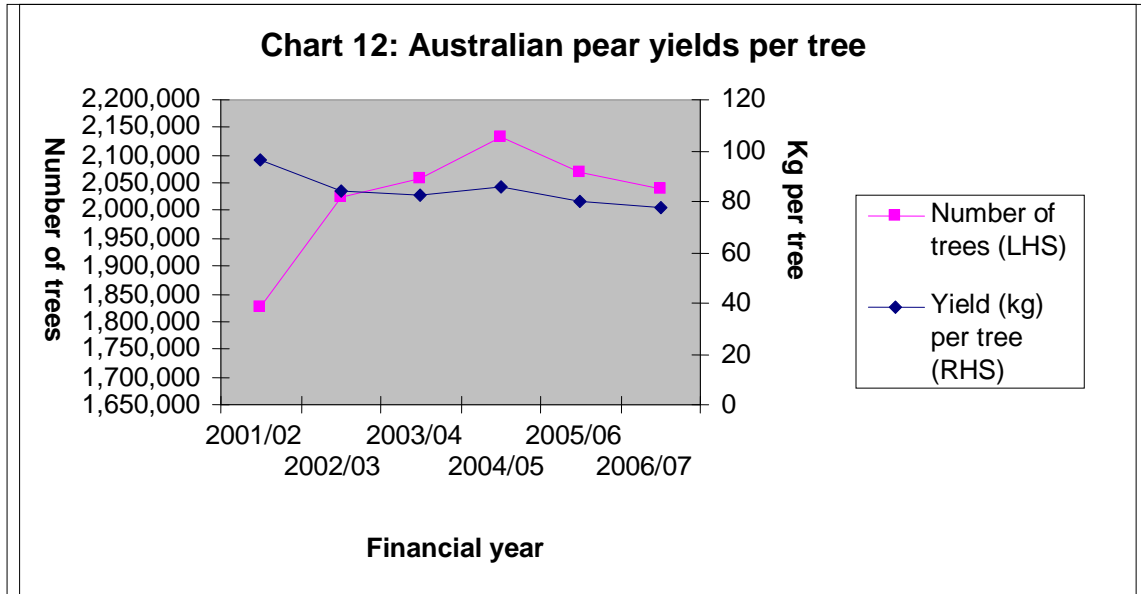
While the WTO case between Australia and New Zealand has concerned only apples, the same issues also apply to pears. Pears are also susceptible to fire blight (indeed some say they are more susceptible than apples) and have other pests in common with apples.

Apple and pear growing require similar climate and farming attributes, and so normally occur in the same districts. As with apples, Australia has been moving to more intensive pear cultivation with a larger number of relatively low yielding trees per hectare. As shown in Chart 12, the number of trees has increased substantially since 2001/02, although falling somewhat since 2004/05. Yield per tree has declined.

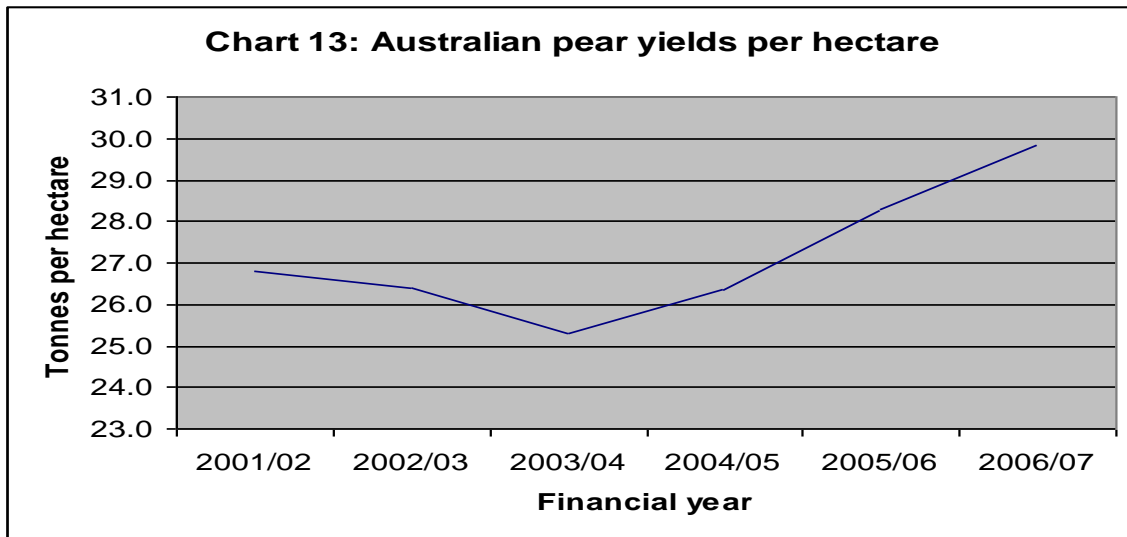
<sup>92</sup> Victorian Department of Primary Industries, *op cit*, p. 21.

<sup>93</sup> Victorian Department of Primary Industries, *op cit*, p. 21.

Australia's quarantine mess - the case of NZ apples



Australian pear yields per hectare have risen slightly since 2003/04 to almost 30 tonnes in 2006/07. However, such yields are still low by international standards; for example, New Zealand yields are approximately 50 tonnes per hectare.



Australia's pear producers are being assisted in the same way as apple producers by quarantine restrictions.

Relative to apples, New Zealand's pear industry is quite small, accounting for only about 2% of its pome fruit output. Moreover, NZ pear exports represent only a small share of industry production. They are sold at fairly high prices in niche markets. Even in the absence of quarantine, there would not be much threat of competition from that direction to Australian pear growers. Indeed, in some seasons Australia exports a few pears to New Zealand.



On the world scene, China is becoming a major world supplier, and without quarantine barriers, Australian producers would face significant competition from this source. They would face strong competition also from other southern hemisphere producers, such as Argentina (the world's largest exporter), Chile and South Africa, which have a strong export focus.<sup>94</sup>

Thus, Australian pear prices, like those for apples, are much higher than they would be without quarantine protection. This disadvantages Australian consumers and the economy generally through distorted resource allocation. However, unlike apples where New Zealand export prices represent a good proxy for the world price, this is not the case with pears.

For this paper, principally concerned with apples, we have not made detailed international price comparisons for pears. However, as the annual Victorian Government agricultural outlook publications indicate, it is apparent that Australian pear producers are progressively falling behind other major southern hemisphere exporters of Argentina, Chile and South Africa, and in the future will be facing increased pressure from China, thanks to improved cool storage and post-harvest technologies, which will permit smoother handling of the two hemisphere supply periods.<sup>95</sup>

It has been observed that the 'lack of differentiation in pear varieties favours low cost producers, rather than high cost producers like Australia.'<sup>96</sup> That is to say, in this industry, high cost producers are likely to find it difficult to avoid having to compete head-to-head with low cost producers. So price is the main competitiveness indicator.

Using direct price comparisons with other countries for what seems to be equivalent product, it appears that the nominal rate of assistance (or price distortion) created by quarantine for Australian pear production is on average around 50%, enough to provide the grower part of the industry with an effective rate of assistance of almost 100%. Based on a local value of pear production in 2006/07 of A\$96 million (less than half that of apples), the associated gross subsidy equivalent (GSE) or transfer to pear growers from consumers through higher prices would be annually some A\$30 million. In the context of the very modest rates of assistance that governments provide to most of the agricultural sector, the high rate of support provided for pear-growing through import protection represents very privileged treatment indeed.

The above points are made here to head-off any suggestions that Australia's quarantine measures for apples might be partly justified on the basis that they are protecting a large and efficient Australian pear industry. In fact, as explained, the Australian pear industry is relatively small – no more than half the size of the apple industry in annual tonnage or value. Moreover it has no more credible a claim to efficiency in international terms than the apple industry. In particular, domestic consumers of pears are paying nearly as much over and above world prices as consumers of apples. Thus these local industries are both

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<sup>94</sup> Victorian Department of Primary Industries, *op cit*, p. 36.

<sup>95</sup> Victorian Department of Primary Industries, *op cit*, p. 38.

<sup>96</sup> Victorian Department of Primary Industries, *op cit*, p. 13.

as privileged as each other, and helping one on the grounds that it is helping the other makes no sense.

### Pear imports

Specific varieties of pears have been imported into Australia for more than 20 years, albeit in limited quantities. In particular, Nashi pears have entered Australia from Japan since 1989, and Korean pears have been sent from South Korea and Ya pears from China since 1999. A 2002 government report said no quarantine pests of concern to Australia had been intercepted on fruit imported from these countries.<sup>97</sup> The regimes for each source are stringent, but not so stringent as to have deterred exports altogether. The table below shows the import volumes reported for 1990-00 to 2001-02 in the government report.

**Table A3.3: Volume (tonnes) of Australian imports of pears from China, Japan and Korea**

|         | Ya pear<br>China | Nashi pear<br>Japan | Korean pear<br>Korea |
|---------|------------------|---------------------|----------------------|
| 1999-00 | 1,204            | 71                  | 15                   |
| 2000-01 | 2,620            | 28                  | 12                   |
| 2001-02 | 1,552            | 10                  | 17                   |

Source: Biosecurity Australia June 2003 report referenced in footnote 97.

As in the case of apples, the quarantine investigation process for pears has been lengthy. The process of obtaining quarantine authorisation for pear imports from China, for example, took seven years. AQIS first received an application to import so-called ‘Ya’ pears (*Pyrus bretschneideri* Redh.) from two designated export areas in China (Xinleitou and Lujiazhung) in Hebei Province in China in April 1991. On receipt of all relevant application requirements, AQIS commenced an IRA in 1996. An IRA document was circulated in July 1997. In December 1998 AQIS issued a final IRA for Ya pears which concluded that “... the risk posed by these pests and diseases could be managed with appropriate phytosanitary requirements.”<sup>98</sup>

<sup>97</sup> See report entitled: ‘Import of Asian (‘Shandong’) pear (*Pyrus pyrifolia* (Burm.) Nakai and *P. ussuriensis* var. *viridis* T. Lee) fruit from Shandong Province in the People’s Republic of China: A review under existing import conditions for Ya pear (*Pyrus bretschneideri* Redh.) fruit from Hebei and Shandong Provinces, June 2003 at this address : [http://www.daff.gov.au/\\_\\_data/assets/word\\_doc/0004/24682/dft\\_pear\\_china.doc](http://www.daff.gov.au/__data/assets/word_doc/0004/24682/dft_pear_china.doc) - 1260k - [ doc ] - Cached - 26 May 2007.

According to the 2010 report of the WTO Panel on NZ apples (pp 436-7), no Nashi pears have entered Australia since the 36 tonnes that came in 2003 and never has the annual volume been greater than the 86 tonnes imported in 1994. ABS figures indicate that in the meantime Australia’s Nashi output has grown - in 2008 for example, Australia produced 3383 tonnes.

<sup>98</sup> See the BA report at web address: [http://www.daff.gov.au/\\_\\_data/assets/pdf\\_file/0004/19381/yapearfira.pdf](http://www.daff.gov.au/__data/assets/pdf_file/0004/19381/yapearfira.pdf)

Incidentally, since 1999, in principle at least, imports of Fuji apples from Japan have been allowed under quarantine conditions similar to those imposed on imports of Nashi pears. These are the only apple imports Australia admits. In the words of the IRA: 'the conditions for the importation of Fuji apple fruit require [Japan's] MAFF to abide by the agreed management procedures. Similar conditions have been accepted by other countries for importation of Fuji apple. Prohibition of importation of Fuji apple is not justified by the risk analysis since appropriate management procedures can reduce the risk to negligibly low levels.'<sup>99</sup> Significantly, Japan is fire blight free. An outbreak of a similar disease known as 'bacterial shoot blight' (or 'Japanese Erwinia') did occur in pear orchards on the island of Hokkaido in the late 1995, but was quickly quelled.

### **Budwood imports**

Another window on the quarantine story for pome fruit is the arrangements that exist for import of breeding material. In relation to such material, local growers might be expected to be pro-import rather than anti-import, given that breeding material is for them a business input. But it seems, from evidence presented at the recent WTO dispute panel hearings in Geneva, that historically the most common cause of the spread of diseases like fire blight has been infected rootstock. So on the basis of their expressed fears of fire blight infection of imported mature fruit, it might be expected that local growers would be equally, if not more, fearful of imports of rootstock.

Interestingly, the quarantine rules for budwood imports into Australia have become less stringent in recent years. For example, a Biosecurity Australia review of post-import quarantine conditions for apple and pear budwood was published in 2002.<sup>100</sup> Its review was prompted by industry requests to shorten the quarantine period from 4 to 2 growing seasons and a draft report of the Department of Natural Resources and Environment (DNRE), Victoria, published in April 1998 entitled 'Proposed Post-Entry Quarantine Protocols for Pome Fruit' (HRDC Project No. AP 627). FBA's main decision was to halve the quarantine period and to add a requirement for routine tissue testing. Also of interest, BA's report noted that its report:

'... does not consider interstate quarantine regulations, as States and Territories in Australia have restrictions or specific conditions for the entry of apple fruit/budwood from other States and Territories, eg. Western Australia prohibits apple fruit and budwood from other States and Territories. For details of the interstate plant quarantine regulations, State quarantine authorities must be consulted.'

### **World prices and the small country assumption**

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<sup>99</sup> The December 1998 IRA on Fuji apples from Japan can be viewed at the web address: [http://www.daff.gov.au/\\_\\_data/assets/pdf\\_file/0007/19348/fapplefira.pdf](http://www.daff.gov.au/__data/assets/pdf_file/0007/19348/fapplefira.pdf)

<sup>100</sup> The BA report can be viewed at web address: [http://www.daff.gov.au/\\_\\_data/assets/pdf\\_file/0020/24662/fin\\_budwood.pdf](http://www.daff.gov.au/__data/assets/pdf_file/0020/24662/fin_budwood.pdf) - 464k - [ pdf ] - Cached - 26 May 2007

In concluding this Attachment, a matter we wish to emphasise is the robustness of the price assumptions underlying our estimates of the assistance being provided by quarantine to Australia's apple industry. As mentioned earlier, our estimates are based on the standard proposition that in the absence of such protection Australia could obtain this fruit at world prices. In world terms, in regard to virtually all products, Australia is such a small market that it can have no pretensions to be a price-maker for the goods it imports. That feature is especially true with goods like apples which are heavily traded internationally.

Another thing readers should be aware of is this. The appropriate benchmark or point of reference for assistance estimates for industries that are protected by import barriers is the free trade, or 'world', price. An underlying assumption is that the domestic price that would prevail in the absence of the protection is the best price at which supplies could be obtained worldwide. That might not in the short term at least, be the price at which one could obtain supplies if import restrictions were relaxed for just one or two source countries. So, for example, if barriers were relaxed against New Zealand apples alone, apples within Australia would become cheaper, but we suspect they would not become as cheap as they would, or become cheaper as quickly, as if barriers against several or all sources were relaxed simultaneously. If barriers against New Zealand alone were relaxed, for a short while at least, New Zealand growers might be able to coordinate their activities enough to restrict the inflow, and secure better prices for their exports to Australia than if they competed fiercely with each other. Ultimately an arrangement like that would be expected to break down because of competition between New Zealand growers, regardless of whether Australia went on to relax the barriers against other countries.

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