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To whom it may concern,

**Tasmanian Government Comment:
Issues paper for apple fruit from the United States of America.**

Please find attached the Tasmanian Government's comments on the *Issues paper for the import risk analysis of fresh apple fruit from the United States of America*. In addition to the formal comments are some specific questions posed by a Departmental entomologist following his review of the issues papers. Specific responses to those questions ahead of release of the draft IRA would be appreciated as this will assist our full review of that IRA when it is released

If you have any questions, please contact me on (03) 6421 7634 or Andrew.Bishop@dpiw.tas.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'A. Bishop', with a long horizontal stroke extending to the right.

Andrew Bishop
Manager
BIOSECURITY POLICY BRANCH

ISSUES PAPER FOR IMPORT RISK ANALYSIS OF FRESH APPLE FRUIT FROM THE UNITED STATES OF AMERICA

BIOSECURITY AUSTRALIA JULY 2008

TASMANIAN GOVERNMENT COMMENT

Prepared by the Apple Fruit Working Group, August 2008

1. BACKGROUND

These comments are submitted because apple fruit from the USA potentially pose a direct biosecurity threat to Tasmania's pome fruit industry, and to other plant industries in this State that might also be affected by pests and diseases associated with the import proposal. However, the Tasmanian Government believes the potential ramifications of new pests and diseases on apple fruit from the USA entering and establishing in Tasmania, go beyond this.

Our favourable biosecurity status is integral to, and at the heart of, the Tasmanian brand, and hence our ability to maintain and position ourselves as a unique source of a broad range of quality, natural produce and products for discerning national and international markets. Accordingly, a biosecurity threat to any single industry, such as pome fruit, is also a threat to how the whole Tasmanian brand is maintained, perceived and valued in the market.

Further, Tasmania's small size and reliance on primary industries means that even a modest impact on one industry can have relatively greater impacts on the State's economy and people, than is the case for other larger, more diverse mainland economies.

These characteristics of the Tasmanian situation inform the following comment on the *Issues paper for the import risk analysis of fresh apple fruit from the United States of America, July 2008* (Issues paper).

2. IRA METHOD

2.1. Assignment of probability ranges to qualitative likelihood descriptors for assessment of probability of entry, establishment and spread

The broad issue is that the method for estimating the likelihood of entry, establishment and spread that has been used in previous IRAs does not have sufficient regard to the kinds of uncertainties that typically attend predictions of complex biological and ecological interactions. We believe this results in a less conservative approach to estimating biosecurity risk against ALOP.

By nature, it is challenging to describe qualitative likelihood clearly and in a way that can be interpreted consistently by all stakeholders. However, applying numerical descriptions in the form of probability ranges to qualitative likelihood categories gives the misleading impression that there is a unique mathematical solution to likelihood, and that uncertainties about how a particular pest might behave or respond in a certain environment can be dealt with by invoking numbers. This approach does not reflect the true complexity of biosecurity risk.

Assignment of probability ranges to qualitative likelihood statements is also problematic because the current probability ranges and associated written descriptions arguably, do not reflect community expectations of acceptable risk. For example, it is possible for ALOP to be met if, in the course of a single year's trade, risk is the product of a one in twenty chance of entry, establishment and spread, and the pest can be expected to have a moderate impact. It is unlikely that the community would find this a reasonable interpretation of acceptable biosecurity risk.

1. The Tasmanian Government recommends use of indicative probability ranges to supplement the description of qualitative likelihood should be discontinued for all IRA work, and greater emphasis given to modifying the descriptive definitions, so that when considered against magnitude of impact, community expectations for acceptable risk are better represented.

The problem described above is compounded by the rules used in previous IRAs to combine qualitative likelihoods for entry, establishment and spread, to yield an overall L (EES). When the same likelihoods are combined, whether for import and distribution, or entry, establishment and spread, application of the rules gives an estimate that is one class lower (ie. moderate x moderate = low), except in the case of high likelihoods. While the case for this can be made with reference to the current probability ranges, the effect of these rules is that likelihood estimates are driven down. This is a less conservative approach that is not appropriate, especially in situations of significant uncertainty.

However, we acknowledge that some means of considering likelihoods collectively is required.

2. *The Tasmanian Government recommends a more appropriately conservative approach to estimating likelihood of entry, establishment and spread could be achieved by replacing the current matrix of rules used for this purpose with:*

“When two likelihoods are different, the overall likelihood is the lowest of two likelihoods, and when two likelihoods are the same, the overall likelihood is that same likelihood”.

2.2 Consequence assessment

Plant life or health impacts

Previous IRAs have identified alternative hosts for the assessed pests and diseases but in some cases have not adequately described some significant distribution patterns of these hosts which could be expected to influence impact, and likelihood of entry, establishment and spread, especially of polyphagous pests. The intensive nature of agriculture that commonly occurs in many fruit growing districts means there is elevated opportunity for significant harm to occur in these areas. In Tasmania, pome fruit orchards are often adjacent to other commercial farms, orchards, vineyards and so forth. This may become increasingly so as more development occurs around water resources, particularly the Derwent Valley, Tamar Valley and Huon Valley.

3. *The Tasmanian Government recommends that alternative host distribution should be clearly characterised in the USA apple IRA, and that BA should consider in detail how host distribution affects the likelihood and consequence estimates, and adjust these accordingly.*

Trade impact estimates

In previous IRAs, the scoring for international trade has not always adequately assessed, and hence may have underestimated, the potential magnitude of impact of some pests and diseases. The statement “may impact on trade with overseas markets” is insufficient because it does not identify which markets in particular could be affected, or the potential extent of that impact. For example, in the case of Tasmania, loss of the Taiwan market could be expected to have a significant impact.

4. *The Tasmanian Government recommends countries that list a pest or disease assessed in the USA apple IRA as a pest of quarantine concern, and the Australian jurisdictions that export to those countries, should be clearly identified in the IRA so that likely international trade impacts are more explicitly described.*

In addition, previous IRAs have generally concluded domestic trade impacts manifest mostly at the local or district levels. However, domestic trade restrictions that could be imposed in the event of an incursion associated with a new apple fruit pest or disease, may well have regional or nationally significant impacts. This is because Australia’s urban fruit markets operate on a national basis around sequences of fruit availability, from early harvests in the northern districts (eg. granite belt, QLD) to late harvests in the south (eg. Tasmania) to achieve supply continuity throughout the year. Supermarkets also operate on a national basis and continually move fruit and

vegetables long distances across the country. Therefore it is difficult to see why domestic trade impacts are assessed mostly as significant at local and district levels.

Further, if the new incursion is a polyphagous pest, a potentially wide range of plant products not limited to apple fruit may have to be regulated, which may have regional or national consequences.

5. The Tasmanian Government recommends that these issues should be clearly identified in the USA apple IRA, and that BA should consider how the nationally-integrated character of fruit and vegetable trade affects the consequence estimates, and adjust these accordingly.

Eradication, control impacts etc

Previous IRAs have stated that some pests and diseases associated with a particular import could be controlled by chemical means if introduced to Australia. However, the relevant chemicals are not always identified. In Tasmania, strict chemical spraying programs are in place to meet the residue restrictions imposed by our major trading partners eg. Japan, USA, Taiwan and Europe. Therefore, although there may be effective chemical treatments for these pests and diseases, Tasmanian growers may not be in a position to use them if they wish to export overseas. Also, we note that some chemicals registered for use in mainland jurisdictions are not registered for use in Tasmania.

Furthermore, one of Tasmania's main product integrity market advantages is relatively restricted use of chemicals, made possible by our favourable pest status. The introduction of new pests and diseases could require increased chemical usage which could affect pest resistance mitigation strategies, and undermine current sustainability objectives, and values of the Tasmanian orchard industry. Increased chemical use could also be expected to have more far-reaching brand impacts.

6. The Tasmanian Government recommends that the chemicals concerned and current registration status should be clearly identified in the USA apple IRA so that it is more apparent whether and in which jurisdictions these chemicals represent feasible control options. Where there are differences, we request BA adjust the indirect impact scoring accordingly.

Environmental impacts

Previous IRAs for horticultural product have typically assigned low scores to potential environmental impact. In many cases, these appear to be based on absence of evidence rather than evidence. We acknowledge the difficulty in predicting environmental impacts of pests and diseases known primarily for their effects in production systems but believe nonetheless that it is insufficient to assign a low score on the basis of 'no known consequence'.

7. The Tasmanian Government recommends that the USA apple IRA should clearly articulate that low scores for environmental impact are based on assumption, unless potential for impact in the environment has been specifically tested and there is

evidence to suggest consequences are likely to be insignificant – where that is the case.

Cumulative Impact

BA conducts Import Risk Analysis (IRAs) on a commodity by country basis. The Issues Paper indicates that existing policy on the importation of apples from Japan and New Zealand, and pears and apple products from China will be taken into account in conducting the IRA for product from the USA where appropriate. This is a valid approach.

However, we observe that the conduct of IRAs on a commodity by country basis, may not adequately recognise that the risk posed by a pest or disease can be expected increase as additional markets are opened for host material from countries with similar pest and disease profiles. IRAs should provide for assessment of new risk in the context of the existing level of risk. If these cumulative impacts are not taken into consideration there is potential for Australia's ALOP to be exceeded.

8. The Tasmanian Government requests clarification on how existing policy will be taken into account from the perspective of cumulative risk.

2.3 Product Free of Trash

The Issues paper indicates that the IRA will assess the level of risk associated with “commercially produced fresh apple fruit, free of trash”.

9. The Tasmanian Government requests risk associated with contamination, including leaf and stem trash, should be included in the risk assessment. In particular the potential for fire blight to be introduced by leaf and stem material contaminating the product should be considered.

AUSTRALIAN POME FRUIT INDUSTRY INFORMATION

It is worth describing the Australian pome fruit industry in some detail since it is the sector likely to be most adversely affected by potential pests and diseases associated with apples from the USA.

However, gross production and export figures, typically provided in IRAs, do not give a comprehensive picture of what is potentially at risk. Without this, it seems difficult to form any clear idea of the magnitude of potential impact.

The IRA could better illustrate what is at risk by presenting an analysis of the industry in terms of challenges it faces, levels of investment, growth or decline, and the relative importance of that growth or decline to the areas in which it is occurring. We understand figures could be gathered without too much trouble, which could inform a more robust and meaningful industry description, and hence, impact assessment.

10. The Tasmanian Government recommends that BA include information in the IRA that describes more comprehensively the industries potentially at risk, to better inform the impact estimates.

4. PEST LIST

Verification of Pest Free Status

International Standards for Phytosanitary Measures (ISPM) should be used as a minimum to verify pest free status of the USA from pests of concern to Australia. Specifically the following standards should be applied:

- *Requirements for the Establishment of Pest Free Areas.* (1996) ISMP No. 4, FAO, Rome.
- *Guidelines for Surveillance.* (1997) ISPM No. 6, FAO, Rome.
- *Determination of Pest Status in an Area.* (1998) ISPM No. 8, FAO, Rome.
- *Requirements for the establishment of Pest Free Places of Production and Pest Free Production Sites.* (1999) ISPM No. 10, FAO, Rome.
- *Pest Reporting.* (2002) ISPM No. 17, FAO, Rome.
- *Establishment of Pest Free Areas for Fruit Flies (TEPHRITIDAE).* (2006) ISPM No. 26, FAO, Rome.

12. *The Tasmanian Government requests that any data supporting area freedom meets at least, the relevant international standards, and if met, that measures are applied to ensure this pest free status is maintained.*

Thousand cankers disease

A recent phytosanitary alert posted by the North American Plant Protection Organization highlighted the risks posed to the walnut industry in America by a newly discovered disease (www.pestalert.org/viewNewsAlert.cfm?naid=65). The disease is referred to as the “thousand cankers disease” and is killing black walnut (*Juglans nigra*). The disease is thought to be caused by the fungus *Geosmithia* spp and is spread by the walnut twig beetle *Pityophthorus juglandis*. In addition to impacts observed on *J. nigra*, samples of *J. regia* infested with both the vector and the fungus, have recently been collected in Utah.

13. *Due to the potential impact on the Walnut industry, the Tasmanian Government requests that Biosecurity Australia confirm whether the twig beetle or the fungus could be introduced via the importation of apple fruit from the USA.*

Some questions posed about weevils and a mite for the forthcoming IRA on USA Apples by BA:

“ The USA apple pest list (Appendix A of BA’s issues paper) has 126 species and the USA stone fruit pest list (Appendix A of BA’s Draft IRA) has 231 species. There are 64 species in common.

Investigation of these lists led me to a paper by Beers and others (2003) which listed weevils attacking fruit trees in Washington. The paper was used by Biosecurity Australia in Appendix 1 of their draft IRA for USA stone fruit. Many weevils indicated by Beers et al. as having apple as a host is not included in the pest list in the USA apple issue paper. Some were included in the USA stone fruit IRA (those with stone fruit hosts but, curiously, not all of them) but others were not in that IRA because they didn’t have a stone fruit host. Hence some have probably been considered in a fruit pathway analysis previously but others may not. Have the following species been excluded because previous communications between BA and the USA, such as for the stone fruit IRA, indicated that their distribution, seasonal occurrence or microhabitat preferences on fruit trees excluded them from the fruit pathway?

- Some such as *Otiorhynchus* and *Sitona* species are potentially serious pests related to species that have previously become pests in Tasmania.
- Gray snout beetle, *Anametis granulata* (Say, 1831). Beers *et al.* (2003) say it damaged peach trees but was also recorded in a few apple orchards eating bark of twigs. BA’s IRA for stone fruit lists it citing the Beers reference.
- Strawberry bud weevil, *Anthonomus signatus* Say, 1831. Beers *et al.* (2003) list apple but not stone fruit as a host citing Campbell et al. 1989 in a paper titled ‘Canadian beetles injurious to crops etc.’ It was not listed in BA’s IRA for USA stone fruit probably because of the absence of stone fruit records.
- Lesser sagebrush weevil or artemesia weevil, *Cercopedius artemisiae*. Beers *et al.* (2003) list apple, peach, cherry and pear as hosts suffering bud injury from adult weevils where sagebrush has been cleared. It was not included in BA’s IRA for stone fruit. (note: A couple of the weevils of concern have *Artemesia* spp as hosts. A species of *Artemesia* is a potential pharmaceutical crop whose agronomy was researched in Tasmania in the 1980s.)
- Weevil, *Cleonidius canescens* (LeConte, 1875) Beers *et al.* (2003) record damage to apple, peach and apricot but the apple record is from Utah in 1908 and 1910 and the ‘attacks were limited to young trees’. It was included in BA’s IRA for stone fruit.
- Weevil, *Cleonidius poricollis* (Mannerheim, 1843). Beers et al. (2003) cite Yothers, 1916 for damage to apricot trees in 1909 but also tabulate ‘apple [lupine]’ in the host column of the table in their paper. It was not included in BA’s IRA for stone fruit despite their citing the Beers reference for other *Cleonidius* species.
- Four-lined loco weevil, *Cleonidius quadrilineatus* (Chevrolat). Beers et al. (2003) cite Yothers, 1916 for its occurrence with little damage on apples and lupine in 1912. It was not included in BA’s IRA for stone fruit probably because of the absence of stone fruit records.
- Cambium curculio, *Conotrachelus anaglypticus* Beers *et al.* (2003) report apple as a host with the larvae under bark but also mention adults ovipositing in damaged peach fruit. It was included in BA’s IRA for stone fruit along with the apple curculio, *C. nenuphar*. (A third species, quince curculio, *C. crataegi* Walsh is reported by Beers on pear, quince and hawthorn but was not in BA’s stone fruit or apple lists probably because of the absence of stone fruit records.)

- Weevil, *Dylobus luteus* (Horn, 1876). Beers *et al.* (2003) report apple, peach, pear and raspberry as hosts. It was not included in BA's IRA for stone fruit although the related weevil, *D. nigrescens* (Pierce) was listed, citing Beers.
- Weevil, *Dylobus nigrescens* (Pierce, 1913). Beers *et al.* (2003) report apple and peach as hosts. It was included in BA's IRA for stone fruit, citing Beers, although the related weevil, *D. luteus* was not listed.
- Weevil, *Dyslobus tanneri* Van Dyke (Lepesoma). Beers *et al.* (2003) cite Yothers, 1941 to report apple, alfalfa and dandelion as hosts. It was not included in BA's IRA for stone fruit probably because of the absence of stone fruit records.
- Weevil, *Epicaerus imbricatus* (Say, 1824). (Beers *et al.* (2003) report apple, cherry, peach, pear and plum as hosts. It was included in BA's IRA for stone fruit.

Similarly, Beers includes apple as a host in Washington for the following weevils but they are not in the USA apples issues pest list.

Has their exclusion already been explained to BA by the USA or has BA excluded them as the result of other investigations?

Evotus naso

Magdalis aenescens

Magdalis gracilis

Omius sacatus

Ophryastes cinerascens

Ophryastes geminatus

Otiorhynchus ligustici

Otiorhynchus ovatus

Otiorhynchus meridionalis

Otiorhynchus raucus

Otiorhynchus singularis

Panscopus aequalis

Paroptochus sellatus

Phyllobius oblongus

Polydrusus impressifrons

Pseudanthonomus crataegi

Rhynchaenus pallicornis

Sciopithes obscurus

Sitona californicus

Tychius picirostris

References: Beers, E.H., Klaus, M.W., Gebhard, A., Cockfield, S., Zack, R. and O'Brien, C.W. (2003). Weevils attacking fruit trees in Washington. Proceedings of the 77th Annual Western Orchard pest & Disease Management Conference. Portland 15-17 January 2003. Published by Washington State University, Pullman.

A mite question:

“Strawberry spider mite, *Tetranychus turkestanii* is not in the USA apples issues paper pest list (it was in USA stone fruit IRA) but apple is listed as a host in the spider mite database on the web (along with many other hosts).

Was it excluded for a particular reason?