Tropical PINEAPPLES
100% AUSTRALIAN

14 August 2012

Senator Bill Heffernan
Chairman of Standing Committee on Rural Affairs and Transport, References Committee
PO Box 6100
Parliament House
Canberra ACT 2600

Inquiry into the effect on Australian pineapple growers of importing fresh pineapple from Malaysia

Dear Senator Heffernan,

I am writing to raise some important points, subsequent to the public hearing held in Brisbane on Monday 6 August 2012.

1 Risk Assessment

It is not known where the "risk estimation matrix", used by DAFF Biosecurity, was developed but it is at odds with normal or standard risk matrices. The risk matrix used by DAFF Biosecurity is heavily biased toward results of negligible or very low overall risk i.e. only 9 out of 36 possible outcomes are above low risk. A summary is provided below:

Overall risk assessment:	**Number of outcomes**	
	Risk Matrix Applied	**Normal Distribution**
Negligible risk	16	4
Very low risk	6	6
Low risk	5	8
Moderate risk	4	8
High risk	3	6
Extreme risk	2	4
Total	**36**	**36**

This is very unusual when compared with examples provided with international and national standards on risk management or the normal distribution shown above. The risk matrix applied is designed to achieve overall risk assessments of low or very low, which may be appropriate for a trade decision but not for managing bio security risks. This is highlighted for further consideration by those who approved the risk matrix.

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By working through the risk assessment, it may help explain how Tropical Pines Pty Ltd, Biosecurity Queensland and DAFF Biosecurity have reached very different conclusions about the overall risk of this bacterium.

Likelihood

The first part of the risk assessment looks at the likelihood that the bacterium will establish in Australia. This is broken down into the following components:

- Importation risk
- Distribution risk
- Entry risk, which is the result of the first two risks
- Establishment risk
- Entry and establishment risk, which is a function of the preceding risks
- Spread risk

The probability of importation has been assessed by DAFF Biosecurity to be low. Our view is that the risk of importation is certain or high as it has been acknowledged that the bacterium will enter Australia in 2% of the fruit that is imported.

The probability of distribution has been assessed by DAFF Biosecurity to be low. We concur with this view.

The risk of entry is a function of the two preceding risks. DAFF Biosecurity has concluded that this risk is very low and this is consistent with the table 2.2 of the import risk assessment (refer attached). However, using the same table and a risk of importation of high, rather than low, the risk of entry is low, rather than very low. Please note that the attached table is heavily biased toward low, very low and negligible risk assessments.

The risk of establishment has been assessed by DAFF Biosecurity as high and we concur with that assessment.

The risk of entry and establishment has been assessed by DAFF Biosecurity as very low, based on the preceding risk assessments and the risk matrix used in the import risk assessment.

The risk of spread has been assessed by DAFF Biosecurity as high and we concur with that assessment.

Therefore the probability of entry, establishment and spread is assessed as follows:

Likelihood Assessment	**DAFF Biosecurity**	**Tropical Pines**
Importation risk	Low	High
Distribution risk	Low	Low
Entry risk (i.e. importation risk * distribution risk)	Very low	Low
Establishment risk	High	High
Entry and establishment risk	Very Low	Low
Spread risk	High	High
Probability of entry, establishment and spread	Very Low	Low

The following points are important when reviewing this table:

- The risk of establishment and the risk of spread have no effect on the overall probability of entry, establishment and spread because of the way the risk matrix has been designed. This means that once the bacterium reaches Australia, the high risk of establishment and the high risk of spread have no impact on the overall risk assessment.
- If one of the risk assessments is low then the combined risk can't exceed low.
- In this case there are three out of four risks rated high by Tropical Pines that result in an overall risk rating of low because one risk is low.
- Using a normal risk matrix, the overall outcome would be high, rather than low or very low.

After assessing the probability of entry, establishment and spread i.e. likelihood, the risk assessment considers the consequence.

Consequence

The consequence is determined by first deciding the magnitude and scale of the consequence, referred to in tables 2.3 and 2.4 of the impact risk assessment (refer attached). Using these tables, Tropical Pines is of the view that this bacterium will have a major significance to a state (region). This assessment indicates the letter F is the appropriate choice from table 2.3. DAFF Biosecurity chose letter E, which is either a major significance in a district or a significant impact in a region or state. The choice of letter then determines the consequence rating from table 2.4.

Tropical Pines believes the consequence rating should be either High or Extreme, whereas DAFF Biosecurity chose Moderate, based on the choice of letter E.

Having determined the consequence, the overall risk estimation matrix (table 2.5 attached), which is biased towards negligible and low risk assessments, is used to decide the overall risk. Using table 2.5, DAFF Biosecurity determined an overall risk of very low. This was because their assessment of the probability of entry, establishment and spread was very low and their assessment of the consequence was moderate.

Using the same matrices, Tropical Pines believes the probability of entry, establishment and spread is low, as outlined earlier, and the consequence is high or extreme. These assessments provide an overall risk assessment of moderate or high, using table 2.5.

The following table summarises the various risk assessments made by DAFF Biosecurity and Tropical Pines Pty Ltd, using the risk assessment matrix included in the import risk assessment.

Risk Assessment	**DAFF Biosecurity**	**Tropical Pines**
Importation risk	Low	High
Distribution risk	Low	Low
Entry risk (i.e. importation risk * distribution risk)	Very Low	Low
Establishment risk	High	High
Entry and establishment risk	Very Low	Low
Spread risk	High	High
Probability of entry, establishment and spread	Very Low	Low
Assessment of potential consequences	Moderate	High/Extreme
Overall unrestricted risk estimate	Very Low	Moderate/High

2 Prevalence of Disease in Australia

There was a suggestion by DAFF Biosecurity that the *Erwinia chrysanthemi* bacterium was already in Australia. We believe it is important to clarify this point. Our understanding is that a strain of the disease is evident in bananas and sugar cane in Australia but the strain *Dickeya sp,* which affects pineapples, is not in Australia. There was also a suggestion that *Dickeya sp* may have entered Australia when a shipment of pineapples was imported from the Philippines. Our understanding is that there was only one shipment of pineapples from the Philippines and that was 2006. If *Dickeya sp* was in Australia it would have been detected in the six years since the import. From our knowledge of the pineapple industry, we are not aware of any evidence that *Dickeya sp* is already in Australia. If DAFF Biosecurity has such evidence, we would like to know immediately.

3 Use of Scientific Information or Knowledge

As stated in our submission to the inquiry, we are concerned that information we obtained from eminent scientist in both Hawaii and Malaysia was not properly considered in the assessment of risk because the information they supplied was not published.

4 New Plantation in North Queensland

We are aware that a new pineapple plantation is being developed in North Queensland. The plan is to plant 600,000 pineapple plants this year. This farm is owned by a large international pineapple company that has a significant presence in the Philippines. We would like to ensure they have not imported the *Dickeya sp* bacterium into Australia and seek DAFF Biosecurity's assistance in investigating this matter. Fifty-one MG3 plants were imported by Dole Australia on 21/1/2007 and were grown in a quarantine facility for the required time of three months. These plants would have formed the nucleus population for the above – mentioned planting of tissue cultured plants. MG3 is a Dole MD2.

5 Stop the Clock Option

The IRA handbook and Quarantine Regulations 2000 explain that the stop the clock option can be exercised where further information is essential to complete an IRA, or where additional research or expert advice is required. Given the paucity of information in relation to latent infection rates, host range and survivability, further research or substantial expert advice is clearly required to evaluate the risk with confidence.

At the recent hearing in Brisbane, the representatives of DAFF Biosecurity stated that the "Stop the Clock" option had to be implemented before the release of the draft IRA. As a result, DAFF Biosecurity never adequately considered employing the option to stop the clock while additional information was collected. This interpretation of the regulations is incorrect; the clock on the IRA process can be stopped at any point when it becomes apparent that additional information is required to complete the IRA (Quarantine Regulations 2000). Indeed, it would be simply illogical for the process to follow the process described by DAFF Biosecurity at the hearing. For stakeholders, consultation on the IRA does not begin until the draft IRA is released, and the need to collect additional information or conduct more research may not be apparent until this point.

Conclusion

The risk matrices and method of assessing risk, used by DAFF Biosecurity, are heavily biased toward achieving overall risk assessments of low or very low. This is a concern for all risk assessments undertaken by DAFF Biosecurity and not just the risk assessment for the import of *Dickeya sp*. Working within the

constraints of these risk matrices, Tropical Pines and Biosecurity Queensland have concluded the overall risk is either moderate or high, rather than low.

Tropical Pines understands that the bacterium is not currently in the Australian pineapple industry and is very concerned about it being imported from Malaysia. If this is not the case, then urgent action is required to ensure the disease is not spread.

We encourage the Senate Committee members to speak directly with Dr Glenn Tanaguchi in Hawaii and Dr Y K Chan in Malaysia.

We believe it is necessary to reassess the import risk assessment for importing pineapples from the Philippines on the basis that they now have this disease. It is also critical that any plant material that has been imported into Australia from the Philippines is investigated to determine whether the plants carry this bacterium.

Thank you for the opportunity to contribute to the Senate Inquiry.

Yours sincerely

Derek Lightfoot

Managing Director
Tropical Pines Pty Ltd

Table 2.2 Matrix of rules for combining qualitative likelihoods

	High	Moderate	Low	Very low	Extremely low	Negligible
High	High	Moderate	Low	Very low	Extremely low	Negligible
Moderate		Low	Low	Very low	Extremely low	Negligible
Low			Very low	Very low	Extremely low	Negligible
Very low				Extremely low	Extremely low	Negligible
Extremely low					Negligible	Negligible
Negligible						Negligible

Table 2.3 Decision rules for determining the consequence impact score based on the magnitude of consequences at four geographic scales

		Geographic scale			
		Local	District	Region	Nation
Magnitude	Indiscernible	A	A	A	A
	Minor significance	B	C	D	E
	Significant	C	D	E	F
	Major significance	D	E	F	G

Table 2.4 Decision rules for determining the overall consequence rating for each pest

Rule	The impact scores for consequences of direct and indirect criteria	Overall consequence rating
1	Any criterion has an impact of 'G'; or more than one criterion has an impact of 'F'; or a single criterion has an impact of 'F' and each remaining criterion an 'E'.	Extreme
2	A single criterion has an impact of 'F'; or all criteria have an impact of 'E'.	High
3	One or more criteria have an impact of 'E'; or all criteria have an impact of 'D'.	Moderate
4	One or more criteria have an impact of 'D'; or all criteria have an impact of 'C'.	Low
5	One or more criteria have an impact of 'C'; or all criteria have an impact of 'B'.	Very Low
6	One or more but not all criteria have an impact of 'B', and all remaining criteria have an impact of 'A'.	Negligible

Table 2.5 Risk estimation matrix

Likelihood of pest entry, establishment and spread	Negligible	Very low	Low	Moderate	High	Extreme
High	Negligible risk	Very low risk	Low risk	Moderate risk	High risk	Extreme risk
Moderate	Negligible risk	Very low risk	Low risk	Moderate risk	High risk	Extreme risk
Low	Negligible risk	Negligible risk	Very low risk	Low risk	Moderate risk	High risk
Very low	Negligible risk	Negligible risk	Negligible risk	Very low risk	Low risk	Moderate risk
Extremely low	Negligible risk	Negligible risk	Negligible risk	Negligible risk	Very low risk	Low risk
Negligible	Negligible risk	Negligible risk	Negligible risk	Negligible risk	Negligible risk	Very low risk

Consequences of pest entry, establishment and spread