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Ms Natasha Exel
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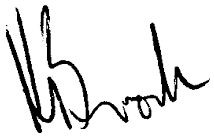
Dear Ms Exel

We appreciate the opportunity to provide comment and relevant information to the Government Administration Committee 'B' Sub Committee Inquiry Into Blueberry Rust.

Please find attached submission on behalf of Brocklands Pty Ltd and if required to assist with any further information or clarification, we would be pleased to assist.

Yours Sincerely



Karen Brock

Managing Director

13th October 2017

Submission To

Government Administration Committee ‘B’ Sub Committee Inquiry Into Blueberry Rust

October, 2017

Introduction

Brocklands Pty Ltd is Australia's largest propagation nursery from tissue culture providing proprietary and non-proprietary plant material of various types of plants to horticultural agribusiness enterprises across Australia. One of our largest categories of plantlet material supplied is blueberry plants intended for future fruit production.

Brocklands specialise in germplasm management of proprietary material from which plants are generated for the clients to distribute to farmers who are usually contracted by large agents to provide fruit to the national consumer market and more recently exported into the Asian region. This germplasm is tendered by International agents with the successful tenderer paying in excess of $75000 USD per single mother plant for the rights to commercially propagate, attain growers and market the resulting fruit.

Biosecurity Tasmania play an important role in protecting the security of this germplasm by use of mechanisms such as Regulated Pests as outlined in the Plant Quarantine Manual. These regulations should reflect the food security requirements for both the producer and the consumer both at local and interstate level. Blueberry Rust is a regulated disease under Section 11 and several Import Requirements are needed to import plants or fruit into the state. The overarching direction of these regulations is derived from Food and Agriculture Organisation of United Nations(FAO). The key principles and practises are frame worked by the International Plant Protection Convention (IPPC) – *"is an international treaty that aims to secure coordinated, effective action to prevent and to control the introduction and spread of pests of plants and plant products*".

Australia is a signatory to this treaty and implementation of the biosecurity principles are administered by a National Plant Protection Organisation referred to as Department of Agriculture and Water Resources Australia.

Regional regulations must reflect these very same principles and consideration of the history of the blueberry rust incursion in 2014 and 2016 needs to be examined in order that other horticultural crops of high value are not impacted therefore undermining the key outcome of the term biosecurity which is security for agricultural investment; ability for commodity export; socio economic impacts on local agricultural businesses and produce of high health importance.

"Biosecurity - procedures and measures designed to protect population against harmful biological or biochemical substances" (Oxford Dictionary).

Brocklands Pty Ltd is of the opinion that the practices and principles of biosecurity in the case of blue berry rust has been contaminated with interference from outside parties, misinformation within Biosecurity Tasmania and DPIPWE itself and total lack of consideration of other parties impacted by these departments decisions.

Unless action is undertaken to seriously investigate eradication the future market access interstate may be limited and in particular access to international customers diminished.

Terms of Reference

The actions taken by Biosecurity Tasmania to address the 2014 and 2016 outbreaks of blueberry rust

In 2014 plants supplied from a Victorian wholesale plants supplier were found to be infected by blueberry rust. The variety was 'Sunshine Blue', an evergreen variety which had some significant interest from home gardeners due to the perception of growing ease. Perception is a significant word as this variety which is a hybrid between Vaccinium corymbosum and Vaccinnium angustifolium requires a temperature zone equivalent to northern New South Wales to remain evergreen and therefore produce fruit for extended years to the label promise.

Two agricultural holdings purchased small numbers of plants to add to their holdings which in turn resulted in their entire blueberry planting being excavated and destroyed and subsequently surrounding plants not related to blueberries being sprayed with high levels of copper based fungicides. The use of these fungicides at high rates in non-neutralised water resulted in phytotoxic results on these plants.

Concerningly plants which were pulled aside at a local retail nursery displaying obvious symptoms of yellow pustules were directed by Biosecurity Officers to be placed at the rear of the facility and remained there until collection some weeks after this direction.

Subsequent follow through with inspections took place in order to access markets through Property Freedom Certification – a process as outlined by Plant Health Assurance Certification. The inspection process was repeated on three occasions and in July 2016 it was deemed that Tasmania had eradicated blueberry rust successfully. Victoria Department of Agriculture jointly announced that that state had also eradicated blueberry rust successfully.

August 2016 it was publicly notified that a large property holding had blueberry rust displayed on evergreen varieties. Subsequent public meeting was called for consultation with blueberry growers about strategies for dealing with the issue. Concern issues from this meeting included the following

- No Economic Impact Analysis had been completed in case of an incursion
- No Environmental Impact Analysis had been determined in case of an incursion
- Change of attitude toward eradication as the "job was too big" and alternatives were being explored
- Growers were informed that Macquarie Franklin would complete a detailed forensic analysis of the blueberry growers of Tasmania
- No clear indication that Biosecurity Tasmania had any important research as a point of reference was evident
- Lack of understanding of what deciduous and evergreen varieties and that leaf burst on the deciduous varieties could have been protected had the evergreen varieties been dealt with immediately
- Timeframe management was slow

December 2016 another public meeting was held not for consultation but to "inform" growers that a containment strategy was going to occur instead of eradication.

Containment was a management option outlined by Plant Health Australia in May 2016. The documents clearly outline that transition to management "it is no longer technically feasible or cost/beneficial to eradicate".

Justification for containment was made based upon the Macquarie Franklin socio economic report. This promised report was never presented and only with Freedom of Information application by a grower was it made available in October 2017. This report appears to be based upon information sourced from Survey of Blueberry Diseases in Tasmania (Ziquing et al, 2009). That report was not accurate in that 19 properties were surveyed stating it represented 95% of Tasmanian growers, when in fact there were 42 known growers at the time. Since 2008 when the survey was undertaken numerous new ventures has been instigated with investment dollars similar to those indicated by Blueberry Establishment and Production Costs (Wilkes, 2015). This information was presented to the Minister, Secretary and Head of Biosecurity and it appears that no due diligence was carried out in regards to the factual nature of the Macquarie Franklin report.

The Macquarie Franklin report states that there are 43 growers, indicating the correction of the 2009 report however it clearly demonstrates that future growth is limited to existing growers and no new ventures mentioned.

The information contained under the eradication vs containment scenario related to replanting and full yields resulting in eight years instead of the reality of four years. This information is supported with the Wilkes report and also was not a question raised with the growers and as a result the appendices and economic graphs are totally inadequate.

Macquarie Franklin failed to

- Provide reference information
- Interview or seek information regarding future investors
- Sought information from a select group
- Incorrect costs for plant removal
- Incorrect time for yield return
- Incorrect production figures

There was no reference to the fact that Tasmania represented the second largest production state of fresh blueberries in Australia nor that there was an estimated 228ha under production. Indicated in Australian Horticulture Statistics Handbook – Fruit 2015/2016: Horticulture Innovation Australia, Tasmania produced 575t blueberry fruit compared to 441t the 2014/2015 year. No account by Macquarie Franklin regarding the 23% increase or future increases were mentioned in any figures provided.

Results from this decision to which the management team of Biosecurity Tasmania played a major role has resulted in limited market access for organic or chemical free growers. This is impacting prices as flooding from a major source is occurring in two domestic markets instead of spreading over five markets. Plant access from Brocklands Pty Ltd is on a case by case scenario into South Australia and Victoria, Western Australia is no access at all and difficult access to send sterile tissue culture in sealed containers. Chemical treatments and inspections by Biosecurity Tasmania are part of the protocols accepted by the two aforementioned states. Property Freedom Status has not been recognised at this point, yet it is recognised by Plant Health Assurance Certification as a mechanism

to move material. Economically, time and resources have not been calculated or reported upon in any of the economic scenarios raised by Macquarie Franklin, or by Biosecurity Tasmania.

Information provided by myself to Biosecurity Tasmania from Dr Rosalie Daniels (DPI NSW), Annemeike Schilders (Michigan State University), Melodie Putnam (Oregon State University), all indicating that deciduous plants or defoliated plants have high chance of interrupting the rust cycle as there are no hemlock forests (Tsuga sp) replicating the USA environment to over winter the rust spores. All information indicates that without any living tissue after 5 days the percentage chance of spore viability decreases until 21 days when there is no possibility of spore survival.

At no time was this information given credence, referred to by Biosecurity Tasmania or placed in a scenario of eradication possibility. Brocklands Pty Ltd was able to communicate referring to scientific papers via email to international peer reviewed paper authors, the question raised is why Biosecurity Tasmania who has no authority or scientific personnel skilled in blueberry rust not able to research the same information.

It has since been revealed, in 2014 Dr Rosalie Daniels presented to Biosecurity Tasmania. It is understood that there was no further communication with Dr Daniels directly when the second incursion was being determined. Dr Daniels, Phillip Wilk and Melinda Simpson (DPI NSW) all presented on the subject of blueberry rust in evergreen environment at Xl International Vaccinium Symposium, Florida, 2016. Questions were not raised with these parties to our knowledge.

Tasmanian Institute Agriculture(TIA) has in their employ an experienced extension officer who has been working with berry growers for numerous years. Either this resource was not referred to, information ignored, or in support of matters relating to an outcome only favourable for containment.

It has also been clear that communication between each of the key players within the department has not occurred with each party relaying different information to recipients of the information. In some instances, information given at meetings was changed at subsequent meetings.

In all the papers researched and communications with peer reviewed persons internationally there is a clear link between blueberry rust and evergreen varieties. This was demonstrated in all European Plant Protections Organisation (NPPO Belgium, Germany, Portugal), USA dialogue and identification in South Africa, Mexico and more recently in China. Blueberry rust is a high alert pest in all countries with the exception of the Netherlands (NPPO) which found blueberry rust in native blueberry populations and therefore eradication was not feasible. Eradication programs are occurring in Belgium, Germany, Portugal, South Africa, Mexico, and China. The United States has particular states of interest as it appears in the cooler states where deciduous cultivars are predominant the rust does not survive the winter. This is replicated in Canada where spore management is undertaken using fungicide application, burn pruning and fertilizer management due to nutrient rich shoots being more susceptible to rust infestation.

Past and present regulatory requirements relating to blueberry industry in Tasmania

Introduction of Plant Import requirements has occurred and is currently in place. These requirements as such appear to be adequate. In the 2014 instance the plants were presented at three access points with independent view of the plants. Manifestation of symptoms were not

visible until up to six weeks later when weather conditions were suitable for spore development. The ability to trace the plants to the source was achievable and a public awareness campaign assisted in raising consumer alerts.

The downfall in this process was lack of intelligence of where commercial and small holdings with lifestyle choice to grow blueberries was evident. It is unbelievable that no lessons were learnt from this and two years later Biosecurity Tasmania was still not aware of:

- Industry size
- Industry participants
- Dollar value of investment
- Value of produce
- Value of the organic sector

In the current Plant Quarantine Act 1997

The Secretary by public notice declares a place to be a quarantine area (Section 17 (1)) The affected party may apply for permit relating to quarantine area (Section 19) and may give owner direction in relation to the quarantine area (Section 20). In subsequent sections 21-28 the Secretary is responsible for all directions of material things in, on or off the property. Such decisions are required to be made with complete knowledge of pest pathways and modus operandi. The advising personnel to the Secretary accountable for any action processes, need to be lodged in such a manner that the process can be traced. The confused statements of who ordered which direction and who is responsible for what has been totally disorientating and is not usual for normal business Standard of Operating Procedures.

In this instance the perception is that incomplete evidence was given based on lack of referral aforementioned to relevant persons. There is also the perception that interference from the affected party in delivering reports and incorrect information to the Secretary and the Minister occurred.

Communication was directed at two key bodies, the Australian Blueberry Growers Association and Fruit Growers Tasmania. Both representing less than 10 growers including the affected party. In both instances no communication to the growers occurred from either source. TIAR did attempt to resolve this conflict by placing news items in the e-newsletter, however, anecdotally this was limited information as well. The question is how is it so that two blueberry peak industry organisations who represent 12% of the industry can have such impact on the decision process. Whilst it is more onerous for Biosecurity Tasmania to deal with multi-faceted interests of individual business', there needs to be a mechanism developed for expressions in order for fair and just discussion.

Also recommended is independent scrutiny mechanisms where all information is sourced from

- Local intelligence
- Scientific persons from interstate and international
- Cooperative team effort within Biosecurity Tasmania
- Transparent accountability chain
- Import requirements reviewed on a five-year program
- Emergency Pest programs identified for key agricultural/horticultural crops

The future of Tasmania's blueberry industry, including the impacts of previous, current and any future outbreaks of blueberry rust

As a propagator we are privy to developments both within the state and interstate. Interstate orders have been cancelled due to access issues with orders moving to two Victorian based business'. Within the state plant orders are increasing with new investors making the most of climatic conditions. The potential aim for investment in Tasmania is the overseas market similar to that developed by the cherry industry.

The key driver for this development is the move from inground production to substrate hydroponic systems under plastic tunnel environments. As demonstrated (Hilderbrand et al 2016) lush growth from fertiliser use can enhance susceptibility for rust to infect the leaf. In addition to the types of plants being grown, the majority of new material is of evergreen nature as these cultivars have higher yields. The tunnel production can also give rise to an evergreen tendency for plants that are normally deciduous.

On the whole it is not advisable to totally ignore the changes in blueberry production and ignore germplasm development but to work on awareness programs in protecting the state and individual business'.

Biosecurity Tasmania have focused on wind being the main causal agent yet information received from USA indicate that the spores travel up to 1km. This is also backed by the presence of rust in Queensland and upper New South Wales since 2003 and yet with the wind patterns over the years, no infestations further down the eastern seaboard has eventuated and the rust has been contained within a 50km radius.

Farm Hygiene programs have been rolled out **after** a major incursion. There has been no emphasis placed upon personnel movement, yet in the Plant Quarantine Act 1997 a person can be defined as "disease agent". Personnel movement is increasing with guest workers moving from one property to another. If personnel movement is the key mechanism for travel registers of peoples on properties for full traceability needs to be addressed. It occurs for Occupational Health & Safety reasons when contractors enter a property, it would seem to follow for personnel movements when travelling for pruning and picking to utilise the same system.

Brocklands Pty Ltd has regular supply chain analysis which has identified market access as a major issue and significant investment with HACCAP for plant movement will be required, enclosed facilities with total environmental control ensuring no causal disease transfer is to be investigated, to achieve access without stymied timeframes.

Other investigations and investments such as electrocharged water treatments (Yu-Ru et al 2007) irradiation chambers for fruit need to be given priority in order that all growers can access more than two markets. Investment into research and equipment would also facilitate international markets with fruit not being affected by maximum residue limits of chemical treatments.

The capacity of Biosecurity Tasmania to manage blueberry rust outbreaks and other risks into the future

Policy is written by Biosecurity Tasmania and if Blueberry Rust is indicative of instigation of the policy the outcome falls short of protecting agriculture/horticulture. It would appear that policy is driven by science which is over ridden by outside factors such as influence and economic statistics. In relation to economic analysis Biosecurity Tasmania need to employ reputable forensic accountants who can accurately portray an industry or give a snapshot into the importance of an industry.

Analysis of situations is difficult, particularly in the early onset of and Emergency Pest Incursion. At this stage Biosecurity Tasmania appear to have this pattern process streamlined.

The downfall occurs in the decision process as outlined in Section 2. It is concerning that should other pests occur of significance in industries such as the fruit, vegetable or animal industries that similar actions result in

- Time delays
- Inappropriate information
- Disregard for all stakeholders
- Discriminatory actions
- Brand damage for the State image

Any other matters incidental thereto

Matters will be raised in confidence separately

Conclusion

In light of the importance of fresh fruit blueberries to Tasmania, the potential market opportunities and recognised growth that is already occurring with fruit production, containment to one area without considering eradication is not the preferable option.

Containment as identified by the EPPO is only if all other factors have been identified

Actions taken by Biosecurity Tasmania with regard to Blueberry Rust has been in the latter incident

- Imprecise
- Discriminatory
- Incognisant of industry
- Selective with information
- Portrayed arrogance in that their skills were above the challenge

Current and future management of introduced regulatory diseases need

- Valuation of each industry of importance
- Mechanism of effective communication to all parties
- Systems analysis for transparent and recordable actions
- Independent decision-making processes
- Encompassing scientific knowledge base from all sources

Further eradication protocols addressing

- Electrocharged water

- Leaf removal
- Personnel transference

Investigations into

- The process and chain of command with the factors that may have influenced the resulting decisions.
- Reliability of information from parties receiving funding from affected parties
- Investigation into the deviation from the original Plant Protection Protocols as developed by the FAO
- Resources allocated for primary Biosecurity duties
- Actions towards the infected properties from 2014 and 2016
- Results from testing carried out on the infected properties

Brocklands Pty Ltd request that the Committee review the current Plant Quarantine Act 1997 and identify if the Act is relevant to modern day application. We would also request that eradication is to be seriously attempted for 18 months before considering any containment program.

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