PUBLIC

THE LEGISLATIVE COUNCIL GOVERNMENT ADMINISTRATION B COMMITTEE MET IN COMMITTEE ROOM 1, PARLIAMENT HOUSE, HOBART ON MONDAY 22 JANUARY 2018

BLUEBERRY RUST IN TASMANIA

Mr PHIL PYKE, **Mr NIC HANSEN** AND **Dr DEAN METCALFE**, FRUIT GROWRS TASMANIA, WERE CALLED, MADE THE STATUTORY DECLARATON AND WERE EXAMINED.

CHAIR (Mr Dean) - Welcome to the hearing today. All evidence taken today has parliamentary privilege attached to it. You are protected through that privilege. However, once you leave this table you are on your own and privilege no longer applies.

I understand you have been provided with a copy of the information for witnesses and you would all have read that and you would understand. The evidence you are giving today will be recorded on *Hansard*. It will become a public document available to everybody. Should we reach any stage during the day that you feel your evidence is entitled to confidentiality, you would need to make that application to the committee and the committee would make a ruling.

I ask each of you identify your current positions and how you came to be in those.

Mr PYKE - Thank you, Chair. My name is Phil Pyke and I am the business development manager for Fruit Growers Tasmania. I am one of two paid staff in the organisation. My role is to work with a number of external organisations, including Biosecurity Tasmania, on a whole range of different projects, which include export processes, biosecurity, weed management and a whole range of different areas that directly affect growers. My role in this in 2014 included being called into that initial incursion at Barrington and Ridgley, and from then on working with biosecurity to see how this could be better managed. That is what brings us to this point.

Mr HANSEN - Good morning, Chair. I am Nic Hansen, fourth generation apple and cherry grower and president of FGT. I took over the presidency of FGT in August 2017. I have been a committee member on FGT for approximately 10 years, working closely with Phil through this time.

Dr METCALFE - I am a member of the Fruit Growers Tasmania Board, representing strawberry growers. I am also a plant pathologist. I was formerly in the employ of the Department of Primary Industries and, among other hats I wore, I was the quarantine plant pathologist. I handled some blueberry issues in that time. I have some knowledge of the way the quarantine system works and what might be considered regular and irregular in these matters.

CHAIR - Thank you. We will refer to one another by Christian name and that is accepted.

We did not receive any submissions from Fruit Growers Tasmania. I give you the opportunity to make any statement you would like to committee and we will go into questioning.

Mr PYKE - Thank you, Ivan. First, I offer an apology to the committee. I was overseas on a federal government engagement program for two-and-a-half months, in September to November. While the initial proceedings were going on, I was away on approved leave from Fruit Growers Tasmania.

This has been a fairly strong issue. It is an issue that goes to the core of biosecurity in our state and it is one that has raised a wide range of emotions amongst a whole range of people. It is very much applicable that we come to this point around the table and have these discussions. I thank you, Ivan and Kerry, for getting on board to drive this inquiry and get it out there. We can sit back and look where it should have gone and what improvements can be made for the future.

To me, it is not just about the blueberry rust; it is about the broader biosecurity reputation around Tasmania.

In this time we have had Russian wheat aphid come in, and we still have the issue of myrtle rust as well. These are the things we need to look at specifically, but also have an understanding about what each incursion brings. Each brings a whole new response, a whole new range of chemicals being used. With new spray regimes it becomes quite a struggle to manage it into the future. Whether one goes for management or eradication, it is still a requirement to bring in new chemicals and new spray regimes into the state, which that has another effect on our biosecurity reputation.

I would leave it there at this stage. I don't know if Nic or Dean want to add anything?

Mr HANSEN - I don't have a prepared opening statement, but I would say that biosecurity is the one thing that we will all live and die by in this state for 100 years to come. It is the parliamentarians of this world's role to enact legislation to make sure that the officers can do their job and have the resources, whether that be money, staff or whatever, to carry out that role. That cannot, and nor should it be, understated. The political nature of parliament should not impact on those decisions, nor should the financial constraints of the biosecurity reach. I think that's what we're potentially seeing here.

Dr METCALFE - From my background, having worked in quarantine, I have a couple of ideas on what might have been normal and what might have been unusual. Somewhere in this proceeding I'd like a chance to make a brief comment on that.

CHAIR - We could give you the opportunity now. It might be the way to go because there will be questions asked of you around this.

Dr METCALFE - There are some things I would say in favour and things I would say against the way the department has managed the matter. The first thing is that they had to make a decision about whether to eradicate or manage blueberry rust at Sulphur Creek. When that occurred they were up to their third incursion of blueberry rust. Having handled some of these matters, there is nothing that is unusual in that when you get up to the third incursion you are talking about whether to manage the disease rather than eradicate it because you start to look at the probability that it has escaped.

I don't find anything unusual in talking about management rather than eradication in that case. It would, however, depend on how many plants and the situation. I don't have all the information on how many plants were infected at that site. I can't say what I would have

recommended because I don't have all the information about the situation they had there and how widespread it was.

In the way DPIPWE has related to growers, there perhaps could have been greater care taken in the way they related to the growers in this matter. You need to handle people gently and there has been a great level of upset in this. I often had to deliver bad quarantine news to growers. You need to consider the terrible financial predicament you are putting them in and talk them through it; counsel them. There really has been a bit of a big stick approach here. Perhaps in the future they could consider how they might want to manage that. I am sure they probably regret the way they did it now.

There is one important matter that perhaps has not come to the fore. I think it was in 2011 that there was a change to Tasmania's import requirements for blueberry rust. We had required inspection of plants coming into Tasmania: to be inspected by a quarantine officer and certified free of blueberry rust. At about that time there was a change to accept a system, I think it was called ICA-29, which basically required that a nursery producing blueberry plants would put a couple of sprays on those plants and they would be allowed into Tasmania. I do not believe there was a direct inspection of those plants. There might have been an annual audit or something like that, to see that the sprays had been applied.

I would like to know why they did that, what the technical basis was to make such a decision. I can't see a reason why you would suddenly accept a lower standard of quarantine than we had. It seems to me that it has directly resulted in this entire situation. There would never have been this incursion, these crop destructions, this inquiry, none of it, if that change had not been made. I just cannot understand the technical justification for it. It is a question that needs to be asked.

Mr WILLIE - What year was that?

Dr METCALFE - I think it was 2011. The change was to accept ICA-29. It may not have been exactly that year, but it was about that time. I have noted - because I re-examined it a few months ago - it has been returned to something closer to its original state now. It has been changed back to a stronger level of quarantine. I suggest that the question needs to be asked of the rationale so the lesson can be learned about why that was done.

Mr FINCH - When you say 'change back', Dean, you say change back now, what is your understanding of what occurs now as far as quarantine is concerned?

Dr METCALFE - I believe there needs to be an inspection by a quarantine officer before anything would be imported, that is my recollection. I do not have the import requirement in front of me right now.

Mr FINCH - Is that what is happening, did you say? Did you say it has nearly changed back to what it was like before 2011? What are the protocols or procedures in place for plants coming into Tasmania?

Dr METCALFE - I can't remember exactly, but I believe it is an inspection by a quarantine officer. There was, as I said, a different system in place for a while.

Mr FINCH - Between 2011 and now?

Dr METCALFE - Yes. I do not have the import requirement here to re-examine it, but I looked at it a few months ago and I noted that ICA-29 requirement had disappeared.

Mr FINCH - These inspections are by biosecurity quarantine service, who -

Dr METCALFE - That would be by quarantine in Victoria.

Mr FINCH - Quarantine Victoria would inspect the plants that are coming to Tasmania?

Dr METCALFE - Prior to that, yes.

Mr FINCH - Prior to?

Dr METCALFE - Prior to the change to ICA-29.

Mr FINCH - In 2011. Now in 2018, you say it is nearly back to where it was before. Would that mean Victorian officers would do the inspection of the plants before they come over?

Dr METCALFE - I can't remember. I would have to re-examine the import requirement.

Mr FINCH - Do you know if the plants are inspected by Biosecurity on arrival in Tasmania? Are they checked?

Dr METCALFE - They would be. I imagine everything is.

CHAIR - When you were working within quarantine, was it your understanding that any plants coming into this state had to be inspected by Tasmanian quarantine officers? Was there a requirement? Was it simply accepted that they were checked on the mainland and that was it?

Dr METCALFE - No, they were always inspected on arrival into Tasmania. Quite often plants would be held in post-entry quarantine circumstances where they would be grown on in pots or something like that. They would not yet be released to the grower and kept at a private site. They could be inspected for a period of time before they were planted to make sure they were healthy.

CHAIR - What would be the position for Tasmania to ensure our borders are kept clean and clear in relation to plants coming into this state? What is the process that would best fit to keep Tasmania with the clean green image we live on?

Dr METCALFE - I think they need to be produced in an accredited nursery with appropriate spray programs, is inspected by an interstate quarantine officer and produced in that nursery for a period of time and found free of disease. When they come into the state, they are to be inspected and found free.

It is probably a good idea also that they are held in pots in post-entry quarantine and examined for a time. We did that when I worked for the department. I was involved in a quarantine operation for anthracnose in blueberries at the Sulphur Creek site. We found an exotic disease and we separated the infected plants. Everything was sprayed. Anything that was infected was removed and gradually plants that had been imported were cleaned up. The ones

that could not be cleaned up were destroyed and the disease was eradicated. That was in pots, not a field situation.

Mr FINCH - With that inspection that might take place, visually, on those plants - the spores that might be blueberry rust would not be visible to the naked eye at that time?

Dr METCALFE - They can be quite hard to see, that is true. I recall a situation in which we were looking at some blueberry fruit coming into the state and we were not able to see the disease until we put it under a dissecting microscope.

Mr FINCH - If they had been sprayed - if a plant comes to the Victorian checkout point and over to Tasmania - with whatever it needs to be sprayed with, the assumption would be that it would be clear and that it would not be bringing the spores of blueberry rust into Tasmania?

Dr METCALFE - If the site was free and it was well inspected; it is a risk minimisation approach. Nothing is zero risk. It does have to be a somewhat developed infection before it is visible, that is true. They have latent phases before they sporulate, before they make spores. Until they have made a certain amount of spores they are not all that visible.

Mr FINCH - Would the spray stop that process?

Dr METCALFE - There is no spray program that is 100 per cent effective, I do not believe, but sprays certainly do minimise it.

Mr FINCH - This is why you are saying that if it comes into Tasmania, has been ticked off, sprayed and everything is okay and it comes into Tasmania, would you say that all of those are put into quarantine to see if they develop the rust, or only a portion? A sample?

Dr METCALFE - No, I think it would be appropriate that they be kept for a time in a post-entry quarantine nursery. They can be grown on in pots. That means the growers can continue to develop their plants. It is at their site so they know that they can look after it, but it is a registered quarantine site and quarantine officers come and have a look at it periodically and they are required to put some treatments on it to minimise the disease. I believe that would be an appropriate type of measure.

Mr FINCH - How long do you think they would need to be in quarantine?

Dr METCALFE - I would suggest a season.

Mr FINCH - A season would be six months?

Dr METCALFE - No, from say June to June, something like that. It would need 12 months to allow a full cycle. I would rate that as an appropriate measure.

Mr FINCH - From your understanding of putting those crops into that 12-month quarantine circumstance, would that be a costly exercise to manage?

Dr METCALFE - I do not think that is an unreasonable cost because the plants are growing that whole time. They are developing as they would in the field. Maybe not as well as in the

field, but sometimes you can look after them better in a pot anyway. I would have thought it is a reasonable measure.

Mr FINCH - Thanks.

Ms RATTRAY - Dean, you indicated, please correct me if you think my assessment is wrong, that you weren't surprised that the third incursion was a containment only. What if it had have been a small grower? Do you think it would have been a different scenario had it have been a small grower the third time we had seen an outbreak?

Dr METCALFE - I think they would have considered it easier to eradicate with a small grower than they would have on that huge Sulphur Creek farm. They probably would have been in eradication mode, given that at that stage they believed the disease had been eradicated from the previous incursion. We're up to our second round of incursions now. I think they might well have attempted eradication on a smaller farm.

When they reached the massive scale they were confronted with there, I don't find anything irregular that they would be asking the question of whether this just got too big and they couldn't do it. There has probably been some special handling based on the sheer scale of the farm. What I don't know is how many plants were infested there. I don't have that information.

Mr FINCH - There was some confusion.

Mr PYKE - That's been part of it. I would like to make a point around eradication versus management. In the first rounds of meetings with the growers in 2016 it was discussed that we could be cutting the plants back, spraying them - this is the evergreen varieties - and over-wintering. To us and to the growers, that was all agreed on. This was the smaller growers. Whether it was called eradication or management that was what we were expecting to still go ahead. That is what we presented to Biosecurity Tasmania and it remains our position today, as it is with some of the people like Mrs Karen Brock, who I highly regard and respect with her opinion. The position hasn't changed, but I think the terminology changed from 'eradication' to 'management'. I am unsure whether that actual method was ever trialled on the Sulphur Creek property. The information flow started to wither at that point, in post-December 2016 and into 2017.

Ms RATTRAY - Fruit Growers Tasmania would have considered containment if it had included cutting the bush back to the ground level?

Mr PYKE - That was the recommendation, Tania, from the world expert, Bernadine Strik. I noted in some of the transcripts there have been references to her reports. I believe it should have been trialled. It should have been given a try in evergreen varieties, albeit that is up to the affected property owner and Biosecurity Tasmania, but it was always the position to do that, to trial that. That is why we bought Rosalie Daniels down here in May. We knew where she sat with this and it was about how you manage it. That seemed to be a better way to manage it into the future; cutting back the evergreen variety, spraying and over-wintering and hoping the cold kills the spores.

Ms RATTRAY - That didn't happen. You mentioned it was up to Biosecurity and the owner. Is the owner able to negotiate that outcome? Do you consider that that might have happened?

Mr PYKE - I can't talk for the group. I think they have been here previously or in the north, but it was something agreed on at the meeting with the smaller growers. The property owner was not in the room on that day but all the smaller growers were there and that was the path they wanted to take. No-one backed away from that and the position hasn't changed - to give that a really good go because it was the best chance we had. Whether that was containment or eradication, depending on the scale, it was a clear way to go.

Ms RATTRAY - According to the information the department has provided us, their control management doesn't list anything in regard to cutting back the bushes in any way, shape or form. It talks about hygiene, vehicle access, treatments to plants to reduce sporulation, treatment required for fruit or host material, and record keeping. That is their list of containment.

Mr PYKE - Yes. We had always added this form of management - we have never backed away from it. Whether that is managed by eradication, I do not know.

CHAIR - FGT made it clear from the beginning that their position was cut back and manage it in that form?

Mr PYKE - Indeed.

CHAIR - That was made clear to all, to Costa as well?

Mr PYKE - That was made very clear in August 2016. We had Mr Chris May from Ridgley come along, and his words were at that meeting were, 'I lost my plants. I do not want anyone else to lose theirs, irrespective of who it is.'. That was the position. That was the position taken at the meeting, not by me. I do not own any plants.

CHAIR - You are acting, I take it, on the advice of Rosalie Daniels, whom you said you brought over here. Were you making that position perfectly plain and clear to Biosecurity Tasmania?

Mr PYKE - Yes, and in following teleconferences as well.

Ms RATTRAY - Did Biosecurity contact you, Phil Pyke, or your organisation and discuss what measure of containment or eradication management they might choose for the third incursion?

Mr PYKE - There were a number of options put on the table, which was why we called the meeting in August 2016. It was to bring the smaller growers together so they could have input into it. The organic sector was the biggest one at risk. The conventional growing sector could -

Ms RATTRAY - They suggest it is still at risk.

Mr PYKE - Still at risk. It was important that we got whatever information we could and that is why we brought them together. It was made very clear from that point on, that is what they wanted to see occurring.

Ms RATTRAY - Did Biosecurity ask for Fruit Growers Tasmania's position and then suggest they would discuss or consider it?

Mr PYKE - The position came out of that meeting and we continually put that forward to them in ongoing teleconferences. The information was scant coming back off the property as to what was occurring, the numbers of plants, the numbers of blocks, and that whole flow of information. Towards the end of that January/February - 12 months ago - the information flow dried up.

Ms RATTRAY - Did the same process occur for the original identification of the outbreak? Did the same process occur with Fruit Growers Tasmania?

Mr PYKE - Yes. We are generally notified of an incursion. It is an industry incursion. It does not matter who members are or if they are not members. We provide a conduit to growers and we sit in. In this case, I was asked to go up and meet with the Schwinds and a Biosecurity Tasmania officer, which we did. Subsequently, the president of the Australian Blueberry Growers Association, Greg McCulloch and I had a personal meeting with Biosecurity, the Schwinds and Chris May at Chris' property and spoke about some of the options moving forward.

One of those options was to find out how this got here through the nursery chain. The nursery chain, particularly under the process Dean talked about, is one of our critical vulnerabilities to our biosecurity. It went on from that point. What I was trying to do was work with Chris and the Schwinds, who weren't FGT members, to try to find out who had the liability for them, because there was no compensation.

There was no compensatory mechanism, which is one thing that always worries me when we talk about eradication. There is still no compensatory mechanism. Whoever loses their property, whether it is Sulphur Creek, I am sure as a very large corporation they could absorb that, but the small people down the road couldn't.

We always have to be careful about using that terminology because I think you are condemning the industry to oblivion if this spreads. In relation to the Schwinds, we are trying to find that liability chain so at least they would have some avenue. We are not funded to do any of this; we don't get any funding from government to go around the countryside and work with growers. Our main aim is in the export market development.

What I was trying to seek was some funding from government so that we could at least have some initial consults with the Schwinds and the Mays and some legal representative to try to get this chain going. Where is that chain of responsibility? Between Queensland, the nursery in Victoria and then into Bunnings and Plants Plus here in Tasmania, we did [not fail 10.40.45???] Who has the legal liability so that those two families can actually have some compensation?

Mr FINCH - Did you say they were not FGT members?

Mr PYKE - Not FGT members, no.

Mr FINCH - You took on this role of overseeing this because of the threat to the industry per se.

Mr PYKE - The broader industry, yes. That is what we do, Kerry. It doesn't matter whose members. We work in the export market space quite strongly. We have a whole heap of people out there in industry who benefit from that but never pay a $220 a year membership.

Mr HANSEN - To further your point, Kerry. Certainly over the last four years, we have had no more than six or seven blueberry members in our organisation.

Mr FINCH - In FGT?

Mr HANSEN - Yes.

Mr PYKE - Quite a few of the people in this process are not members of the Fruit Growers Tasmania -

CHAIR - We will go down that path of membership in a minute. First of all, just on the quarantine -

Ms RATTRAY - Are you aware of the letter from the Victorian Minister for Agriculture? It clearly says in the third paragraph, because our minister wrote at the time and asked for some explanation:

[TBC]

> I can confirm preliminary feedback gathered from the investigation undertaken on the business has indicated identified procedural elements within the ICA protocol that may have contributed to the recent blueberry rust outbreak in both states, as well as the relevant improvements to prevent a reoccurrence.

They have taken some responsibility; they should be coughing up. Are you aware of that?

Mr PYKE - No. In fact, Tania, I was going to be blunt and say that the cooperation from the Victorian side had been rather minimal.

Ms RATTRAY - I suggest they are saying there are some deficiencies and so there is some responsibility that should have been taken. The government of the day has had that letter since 6 May 2016.

CHAIR - Dean, did you want comment on that? I think it was worrying you.

Mr METCALFE - I already said that I didn't find that procedure to be really adequate. I cannot understand us - 'us' as in Tasmania - accepting that as an acceptable quarantine method for preventing a disease of this significance.

Ms RATTRAY - Effectively Victoria and Tasmania are both negligent in their role in making sure that no plants came into Tasmania with blueberry rust on them?

Mr METCALFE - I have not read that letter. I don't know exactly what Victoria has acknowledged there.

Ms RATTRAY - Not much, but enough. Enough for me to get that they knew there was a problem with their procedure.

CHAIR - Dean, would you provide that to them to have a quick look? Is that available?

Ms RATTRAY - By all means, somebody gave it to me, Chair.

CHAIR - You mentioned to Tania, and you made it clear, that information coming out of Costa was scant. Why do you believe that was the position, as it seemed that the evidence was coming from Costa at the time that happened?

Mr PYKE - I will rephrase that. I didn't deal direct with Costa. I deal with Biosecurity Tasmania. So it is information coming from Biosecurity Tasmania, which they collect off a site. I do not know why this all suddenly went quiet, to the point that when those other two smaller properties were infected in April/May 2017, we were never notified of it. I picked it up as a rumour. Industry abounds with rumours about a whole lot of things. It was something that I thought, when I get the opportunity to follow it up, I will. One of your previous witnesses said that she would find out more information for me. The information appeared to completely dry up.

We have other things we move on with but there was still a lot going on in the background. To this day, I have never had a formal briefing about the incursion in those other two smaller properties.

CHAIR - I don't want to get too far away from the quarantine matters. We need to hear from Josh as well. As a representative of Fruit Growers Tasmania - and we will go down the positions of the membership - as supporting these 80-plus growers in Tasmania, did Fruit Growers Tasmania not accept the position that they had a responsibility to find out more about what was happening in this area so they were able to protect, to the best of their ability, their membership and the smaller growers?

Mr PYKE - There is an element of that, Ivan, and I am prepared to wear that. But we are an office of two people. I am reliant on Biosecurity Tasmania to keep us in the information loop, whether that is emails, phone calls or updated reports. We have a lot of things on. Bear in mind that we do not own the list of the blueberry growers so it has to come through Biosecurity Tasmania. We are there on the fringes to manage this and assist growers where they need assistance.

CHAIR - You were not getting that support from Biosecurity?

Mr PYKE - No. We do not put the information out to the growers. The key information conduit is not through us to the members. It is through Biosecurity Tasmania to the members because they own the information and they have the list.

CHAIR - I will go to Dean, having read that, whether you are able to answer the question asked by Tania?

Dr METCALFE - I will read the paragraph from the letter:

> I can confirm preliminary feedback gathered from the investigation undertaken on the business has identified procedural elements within the ICA protocol that may have contributed to the recent outbreak in both states.

They have identified some improvements. The procedure was simple. To the best of my recollection, it required a couple of copper sprays to be applied to the plants, which would do something to reduce the infection hazard. If I recall and understand it correctly, there would be an

annual audit by a Victorian quarantine officer of whether those had been properly applied. I hope I understand it correctly.

It is grossly inadequate we ever accepted that. I don't know why we did.

CHAIR - Grossly inadequate?

Dr METCALFE - Yes. The Victorians acknowledged something was not done properly in the process there. They may have failed to audit it and maybe they failed to spray it. I don't know what they have acknowledged because they don't say what they failed to do. They say they failed to do something. I don' think we have demanded enough to make sure we had clean plants here.

Mr WILLIE - Dr Metcalfe, sorry to go back over old ground, but I feel that needs a bit more scrutiny around it.

You said that it was not unusual to move to a containment strategy on a third incursion and the scale of Costa may have been a factor for that. If it was a smaller grower it might have stayed at eradication. Given your experience in plant pathology, did Mr Pyke seek your counsel over that and whether that was unusual?

Dr METCALFE - No, at the time he did not.

Mr WILLIE - I guess that would be a little bit perplexing to me, that you have someone of Dr Metcalfe's experience and you did not ask-

Mr PYKE - Well we are dealing with Biosecurity Tasmania who also have a plant pathologist. That is what we are working with, and Dean travels a lot for his own business as well. I did not communicate with Dean because he was a board member for the very sector, but he has only held our biosecurity portfolio since August last year. Since he has picked that up we have had a lot of communication with him.

Mr WILLIE - It would have been good to test Biosecurity's information, with that at your disposal.

Mr PYKE - We do not have the time or the resources to do it. It would be nice if we did. I am dealing with Andrew Bishop. I have to take on trust what they say is good, but it was Dean's work in the background that found this ICA had been changed. That would never have been volunteered to us - it was Dean's work there. It would be nice to be able to do a lot of things.

Mr WILLIE - Okay. Back to Dr Metcalfe. You said it is not unusual for that to occur in a third incursion and that the scale of Costa's may have been a factor. Do you think that the rest of the industry should have been considered in that decision? You have a huge potential for economic cost to one farm - should that have been weighed up against the economic cost and the risk to the rest of the industry?

Dr METCALFE - Yes, I think it should. It is normal to consult widely and consider the implications for all factors. I thumbed through the department's submission to this inquiry yesterday. I could see the scale of plant destruction and things like that as difficult things to manage. They had some time constraints, too. I find it hard to judge whether eradication or containment were the better approaches without knowing how many plants were infected in the

first instance. If it was contained to a block, or if it was a certain number of plants that were a small proportion of the entire site, you would consider it feasible, but if -

Ms RATTRAY - Wouldn't you do that anyway in the interests of your business, even if you were a big player? Wouldn't you remove that part of the crop to protect the rest?

Mr WILLIE - They are not organic, so they can spray.

Mr PYKE - That is the thing. It is spray-regime standard.

Mr WILLIE - You said that ICA-29 being changed was wholly inadequate. This may have been before your time and it touches on Mr Hansen's comments early on that parliamentarians have the ultimate responsibility here. What did Fruit Growers Tasmania do over that period to raise awareness that it was wholly inadequate? Was any lobbying done towards parliamentarians, were the risks made public to alert people that this whole situation could have happened? As a peak body for growers, where does your responsibility lie in that statement?

Mr PYKE - Our responsibility is part of that public information flow and as an organisation we're out there, very much so, talking about the risk. This is the 2014 incursion we are talking about, and the need to eradicate. Everyone agreed the need to eradicate and there was that opportunity. While we are talking about properties with blueberry plants, Bernadine Strik highlighted a number of native Tasmanian plants that could host this as well, such as some of those smaller wax leaves that are in the bush. We also have rhododendrons. All this information had to go out. We've had meetings with the Plants Plus and Bunnings people.

Mr WILLIE - I think we're going down a different path. I will clarify my question. It was around ICA-29 and that being inadequate.

Mr PYKE - Sorry, I will retract all I said, it was before my time. I don't know.

Mr WILLIE - How long have you been with Fruit Growers Tasmania?

Mr PYKE - Only four years.

Mr WILLIE - Four years, so it has only recently changed back, according to Dr Metcalfe. I'm interested in what you've done to raise awareness about that being inadequate?

Mr PYKE - We've spoken to the minister about this. We've spoken to Biosecurity Tasmania because we still don't know why this has occurred. One of the things that could come out of this inquiry is the background behind this; why did it occur, how did it occur and is there a danger of someone changing - they would be regulations, wouldn't they, Dean?

Dr METCALFE - Yes, under the Tasmanian plant quarantine manual.

Mr PYKE - Changing regulations like this, as Dean said, caused this particular issue. Were we engaged on it? No, we weren't.

Mr WILLIE - Do you know of any other associations? The TFGA?

Mr PYKE - Nobody had been engaged on it, nobody knew about it. It was only through Dean's work that he picked this up. I would say it is only because of his past life as a plant pathologist in the government that he actually knows where to go to look for these.

CHAIR - You were not being consulted in relation to when it was available, in relation to the Schwind situation; did that concern you? Did you raise that as an issue, Dean?

Dr METCALFE - I was not largely aware of what had happened for quite a time after it had happened. I did not hear how the Schwinds had been handled until about September last year. I didn't realise just how heavy-handed the approach had been and it did concern me after I heard this. There was a lot of things I had not heard.

Mr FINCH - How long have you been on the board of FGT?

Dr METCALFE - About two-and-a-half years.

Mr FINCH - The 2014 incursion was well before your time.

Dr METCALFE - My time as a board member, yes.

CHAIR - In that time, did you have your own consultancy? What was your position?

Dr METCALFE - I have a private business.

CHAIR - A private consultancy?

Dr METCALFE - That type of thing. I'm a private plant pathologist now.

CHAIR - I'm conscious of time and there are so many issues we wanted to speak to here. This is a very important but a small part of the areas we wanted to consider. I can see we are going to have to invite you back again. The committee will talk about that. Kerry, if you want to follow a certain line.

Mr FINCH - I'm curious about the number of blueberry growers registered with FGT. We have been talking about the 80 growers, organic and otherwise, who are in the field and only six have been motivated enough to join.

Mr PYKE - A lot of them are part of a small cottage industry, a vital part in the regional areas and do a damn good job of growing. They don't often see a need to belong to organisations with set meetings but they come along to the nights. If we have a growers' night we'll see growers there who aren't members but they come along, pay their money and listen to the speakers and then they go. That's always been the way with the berry sector. It is the way with the strawberry growers and it is the same with the raspberry growers. You have a small industry out there, the smaller growers that are part of the industry. They're not levy payers, so there is no track on how many people are paying levies into the federal system like the larger growers do. It is very hard to track them. It is only when you have something like this that you suddenly realise just how many people there are out there.

Even so, the last two properties that had the incursion, post-Costa, they were not on anyone's radar, even after the 2014 incursion.

Mr HANSEN - I am happy to table this, Chair.

CHAIR - Is that a list of membership?

Mr HANSEN - Yes, that is a list of our members going back three or four years.

CHAIR - This list of members at this time is 18?

Mr HANSEN - No, if you look at the top column you will see that in the current years, 2017-18, we have four blueberry members.

CHAIR - Is that all FGT has, four members only?

Mr HANSEN - Correct. We have had membership drives, all our FGT main conference days are sent out to everybody and made public on ABC radio. There was television advertising on this last year and people are aware. On those days we have a membership drive, asking people for $220 fee to be a member, and why wouldn't you be?

Ms ARMITAGE - Ivan, how long has Costa been a member? Is it one of the four?

Mr HANSEN - Correct. They have been a member for the two past financial years.

Mr FINCH - Do people who are growing and exporting blueberries need to register with Biosecurity Tasmania to do that?

Mr PYKE - They do, depending on where they are exporting to, if they are.

Mr HANSEN - I doubt very much that any blueberry growers in this state are exporting their fruit.

Mr FINCH - They would be domestic?

Mr PYKE - Domestic, Australian. The closest it has ever been is Kent Mainwaring, who sent some produce to the Sydney markets and it ended up in Singapore. That was not them exporting, just picked up off the floor.

Mr FINCH - What is the latest now in your understanding of how many blueberry growers there are? There is confusion? Is there a specific number?

Mr PYKE - I think you have to ask, Kerry, what constitutes a grower. Phil Pyke with five plants in his backyard, or somebody who generates a reasonable income. It is very hard to determine. We will always continue to find more and more people to add to the list.

The list Biosecurity Tasmania had originally was only around 30. Then it went up to 50 and everyone was hovering around 50 to 60, and now you tell me it is 80. It is good because it means more people have been contacted and are improving their on-farm biosecurity. That can only be a good thing. Ordinarily, these people are back in the hills, doing what they do and never come out to become members of anything.

Mr FINCH - Is 50 the figure you have now?

Mr PYKE - Fifty-four

Mr FINCH - Does Biosecurity communicate and maintain a dialogue with or have a flow of information to those 54 people?

Mr PYKE - I believe they would now, Kerry. They originally did when the first incursion came. They are the ones that go around all the properties. Bearing in mind, the Schwinds did not appear on anyone's radar. They were found because Biosecurity drove around and said, 'We had better go and have a look at their plants.' That is how they were found. The other, Chris May, self-reported. It is a commendable outcome.

I tend to think that because it is not a levy system and there is no real way of tracking it, Biosecurity probably have the best list possible. It is incumbent on them now to keep on putting out all the information.

CHAIR - We are over time. Kerry, did you want to finish there? Josh and Tania have questions.

Mr WILLIE - With this inquiry, we are going over a lot of what has happened. I am interested in what we can do into the future. Talking about registers, if you are exporting, do you think there needs to be some regulatory framework around - maybe a threshold of what constitutes a grower. If you are in that cohort, then you would be required to register. I guess that would not only apply to blueberry growers, it would apply to a whole range of different industries. I think potentially Biosecurity is not mitigating all of the risk if they are not aware of what is out there.

Mr PYKE - I agree. I think then it becomes incumbent on that grower to have a level of biosecurity. Certainly the major cherry and apple producers do. They are required for their export markets to be audited by the Department of Agriculture. Biosecurity Tasmania, depending on where they are exporting to, the Japanese, the Koreans, the Taiwanese, they all come down here and it is a gap, where we have levels of big producers who are biosecurity aware, are farm-safe aware, which is another angle we have put in, and then it drops away. I know smaller growers where people travel 400 or 500 metres through their farms to get to a farm shop. To me, if you are going to maintain your biosecurity, that is not the way to go when you have produce on each side.

If we are going to enhance biosecurity - you asked there, Josh about a way forward - I think we need to maintain the responsibility back to the smaller growers to be the best they can be, not only growing the best produce but being the best in the biosecurity and being part of contributing to our biosecurity barriers.

Mr WILLIE - Should there be a register system?

Mr PYKE - People do not really want to give the government their details. With everyone else, we can detect the numbers through levy payments for the major producers, but there is always going to be people who will not want to join, will not want to be part of it. I am not sure how you register, but I like the idea. What it means is -

Mr WILLIE - Is that something that could go across industries, if you are talking biosecurity?

Mr PYKE - We could do it right across a whole range of industries, but the outcomes I would like to see first out of these inquiries are how we make it better and stronger into the future.

CHAIR - That is what the committee is about. That is why we are going down this path now to find what you - that question is going to have to wait until we come back - believe Fruit Growers Tasmania should do in this industry to make it a better industry, and biosecurity issues and all of those issues moving forward.

Ms RATTRAY - I am interested in the percentage that blueberry growers make up the fruit growers' industry in Tasmania. Have you got a percentage of that?

Mr HANSEN - Sorry, I do not quite understand the question.

Ms RATTRAY - If there -

Mr HANSEN - We have four members.

Ms RATTRAY - Yes, you have four members. In the other industries, what percentage -

Mr HANSEN - Sorry. Yes. In the pomme fruit industry and the cherry industry we would be running a high 80 per cent, 90 per cent saturation. Yes, membership is always one of those issues where everyone benefits even if you do not pay your dollars.

CHAIR - I will go then to Kerry for a final question. In 2014-15 you had nine members. Today you have four members. Does that identify disillusionment between these blueberry growers and Fruit Growers Tasmania? Can you come up with an explanation as to why there has been over half of your membership resigning from it in that three-year period?

Mr HANSEN - I would say that is exactly why. Potentially they thought that we were not doing more for them or were not being in a space where they thought they were getting value for their membership. It beggars belief that anyone could believe that, given the workloads that we do and the money that we have spent in this industry and the time that we have spent on this type of grower. It is hundreds of thousands of dollars.

Mr PYKE - To put it in the picture there, Ivan, it is actually the rest of the industry that was supporting our response to this. It is the apple and cherry growers. Remember, these blueberry growers, the four who have left - the rest of them did not belong to us. We did not get money from government to respond to this.

Mr HANSEN - It is not just blueberry rust. There are so many other things we have done for the industry all the way through, whether it be field days and grower days and all the rest of it. If you talk about cost recovery, we are running at 0.001 per cent.

CHAIR - I do not want to cut you off, but we need to move on.

Mr FINCH - Prices for blueberries this season, we are seeing lows of something like $15 per tray, are we dealing with a glut?

Mr HANSEN - We're also a large raspberry grower too and we grow 100 tonnes of raspberries per year. We're seeing exactly the same in the raspberry industry. We're seeing tray prices into the two major supermarkets at 50 per cent below production cost. We're seeing $26 a tray where the industry needs a $42 tray, which is a sustainable price to be able to make money. We're talking about prices going into the two major supermarkets here.

It's a supply and demand thing that's happening. The demand is exceeding the supply - there's no question of that. That's why we as an association are looking at export. That is something we'd like to talk about more, but it's not part of this committee's insight. These are very real problems in this industry. If you couple that on top of blueberry rust and a lack of production and all the rest of it, it is getting hard to make some money.

Mr FINCH - Did you say demand is not exceeding supply?

Mr HANSEN - No, demand is exceeding supply. Sorry, I beg your pardon, the other way round, yes, the supply is more than the markets can handle, absolutely.

Mr FINCH - So sustainability must be under threat?

Mr HANSEN - Correct. Very much so. We have this fantastic opportunity to export. One thing I have for the committee is that you need to look closely at the nursery industry in this inquiry. I think you'll find that a lot of what's been caused here has come from the nursery industry, the regulations and how they are controlled. That can go across all industries and nurseries, whether they be pomme fruit, stone fruit, or any nursery. Regulation of those nurseries, the quarantine status and the inspection status - we've been through little cherry virus in the last two or three years - and all of those things; accredited nurseries is absolutely paramount.

Mr FINCH - Do you think it is due to the quick expansion in this area, the fruit growers?

Mr HANSEN - Absolutely, no doubt. Having said that, as an organisation, not just ourselves; we are QA'ed to death, we are inspected to death and quarantined to death in our industry. I'm not sure that is the case in the nursery industry. If I told you how many hours, our cost of compliance would be upwards of $100 000 a year in quality assurance and all those things.

CHAIR - We would like to expand on the inspection regime and the red tape raised with us by growers. That is seen as unreasonable in all of the circumstances.

Mr HANSEN - You better give us two days, Chair.

CHAIR - I have to draw it to a conclusion. Thank you for the evidence you have given thus far. I have no doubt that the committee will be making a decision to recall you. I'm not sure when that would happen, because if parliament is prorogued we cannot operate as a parliament and these committees can't continue. We would have to wait until a new government is formed and parliament is reformed. That could be some time away. If it is not, we might try to book another session soon, at your convenience and our convenience.

Mr HANSEN - For the record, FGT is committed to transparency and committed to making things 100 per cent better. We brought Dr Metcalfe with us today when that wasn't a requirement.

CHAIR - We appreciate that very much.

Mr HANSEN - His expertise is unique, both in the real world and in the world of biosecurity. His knowledge is phenomenal.

CHAIR - If we had known of Dr Metcalfe's expertise in this area we would have been seeking to bring him in, in any event.

Mr PYKE - He's been given the biosecurity portfolio for FGT now, so he's been hammered since he has had it.

CHAIR - Thank you very much, we appreciate that and I am confident we will be contacting you again shortly.

THE WITNESSES WITHDREW.

PUBLIC

Mr ANTHONY POINER, SECRETARY, AUSTRALIAN BLUEBERRY GROWERS ASSOCIATION, WAS CALLED AND EXAMINED VIA TELECONFERENCE.

CHAIR - Anthony, this is a public hearing. It is on the public record. It is being recorded by *Hansard* and will be made available to the public. Was the information for witnesses forwarded to you?

Mr POINER - It may well have been. I read some material that indicated there is a level of protection in terms of what I say, but I should say the truth.

CHAIR - Any information or evidence you provide to us through the conferencing process is protected by parliamentary privilege as it is if you were here giving evidence to us across the table. Once you leave that position, once you leave that phone and contact with us, you are no longer afforded privilege.

You have not provided us with a submission. I can give you the opportunity to make any submission to us that you would want to make, and we will go to questioning. Is there some written procedure or information you might have or a statement you might want to make to us in accordance with our terms of reference?

Mr POINER - Yes. I am happy to make a statement for a few minutes, not to make it too long but to get the key points across.

CHAIR - Yes, sure. You have the floor.

Mr POINER - Great. My name is Anthony Poiner. My company, we are berry growers in three states of Australia, blueberries and raspberries and soon to be blackberries, including Tasmania. As well, we grow other fruits, grapes and citrus. I'm also a committee member of the ABGA, the Australian Blueberry Growers Association. I've been asked by my committee members to attend this meeting.

The ABGA is the peak body representing blueberry growers in Australia. We have about 170 members and our membership represents 95 per cent, to the best of our knowledge, of total annual blueberry production in Australia. Twenty-two of our members are growers in Tasmania. While our association is not a research or a technical organisation, our members do represent the vast majority of accumulated Australian experience growing blueberries, including in the management of various diseases.

Through our membership of the international blueberry organisation, we've also been able to assist our members to draw on global experience and global experts. We are a voluntary organisation; it is voluntary to be a member. As a committee member that's a voluntary post. We don't have significant resources other than the time that we give to it, but we do have experience.

As a committee, recently, we've spent a bit of time discussing this issue and I wanted to share our experiential-based view of blueberry rust. I can encapsulate that in the following key points.

Blueberry rust is an extremely common disease in blueberry orchards in Australia and also around the world. Blueberries are not the only host. One reason that blueberry rust remains

common is that a range of very common other plants also host the disease, including a range of species common in Tasmania.

For growers it is very important to manage and limit the negative effects of blueberry rust as once that disease takes stronghold it can significantly detract from plant health and then reduce yields. Fortunately, it's a disease that can be managed. The effects can be contained, notwithstanding its presence, as I mentioned earlier, all around the world. Indeed, blueberry growers and industries in regions all around the world where blueberry rust exists still thrive.

As a specific point I note that in Oregon, on the west coast of the United States, where blueberry rusts exists and where hemlock, one of the main host plants, is very prevalent, the leading blueberry nursery operation in the world, both in quality and quantity, is able to thrive and ensure that they maintain no detectable signs of blueberry rust in their operations. You can operate within in an environment where blueberry rust exists within a region.

We know of no regions in the world where blueberry rust has been reported to be detected and subsequently permanently eradicated. Blueberry rust has not led to the demise of the blueberry industry anywhere that we know of.

CHAIR - Tony, sorry, I just want to cut you off there. I omitted to making a statement at the beginning I should have made and if I can just make it now. That is to make it perfectly clear that we have now at this stage have gone back to public evidence. This is done for broadcasting purposes so that can now continue as a part of today's process. We're back into the public area of taking evidence. Thanks, I will let you continue.

Mr POINER - I just listed the points that encapsulate our key views on rust as a disease, where it exists, how it exists and what can be done about it.

We don't have the full set of facts as you have but in terms of our thoughts, the best approach that Tasmania might take now, given that rust has been detected again, can be captured in the following ways.

Our accumulated experience would suggest a containment strategy in initial instances is probably the wisest way. Containment and management strategies have a long and wide history of success in major blueberry growing regions in Australia and across the globe whereas an alternative strategy, eradication, has not had success. This strategy is also most likely to allow the Tasmanian industry to grow dynamically because it brings the greatest investment certainty for both growers and also blueberry breeding programs. They are very important for the future development of the Australian blueberry industry and I would posit also for the Tasmanian blueberry industry. There are newer and better varieties coming on all the time. They are the key features which give us a significant differentiation in key markets such as Asian markets.

Alongside that are efforts across Australia to develop export strategies, which the ABGA is heavily focused on at the moment. This can also assist the Tasmanian industry to be an export force in berries if we maintain a containment and management approach. The fact that rust exists in Tasmania is very unlikely to have any negative impact on international export customers. There is quite a difference for example from what Queensland fruit flies might have. That would have a very deleterious effect, whereas we don't believe rust would. If containment is no longer a viable strategy, then a management strategy would still fulfil most of the above positive points that I have made. At the first level, our view is that a containment strategy is wise.

The second encouragement is to adopt practices to limit the negative impacts of rust on plants and fruit by helping growers with skills to self-monitor and also provide a level of monitoring from a more regulatory-type organisation, such as Biosecurity Tasmania, to monitor orchards for any evidence of expression. Monitoring it then allows you to act and then to limit its impact. If incidences are found, then contain them by spraying. If you are not an organic grower that is a readily available technique and works well. If you are an organic grower there is a range of other techniques such as removing leaves or creating a protection level such a growing in a tunnel and there are a range of other things you could do.

Thirdly, is to adopt sound biosecurity practices. I think there can be an improvement in biosecurity practices across Tasmania in order to limit the transfer between farms. It is not only an airborne disease but it is transmitted easily on clothing and any other material that comes in and out of farms. Improving sound biosecurity practices can limit any additional incursions and keeping them as isolated as possible can help. To that extent the ABGA recently drafted a code of conduct for our industry, which includes guidelines to good biosecurity practices. We are supportive of the approach taken through negotiation with Victoria and South Australia to create property freedom allowances, which mean that growers who are considered free of rust can still export to Victoria and South Australia.

We are also supportive of the approach for those who do have rust having been detected to use the ICA-31 approach to be able to export to those markets.

I have made quite a few points. That pretty much encapsulates the combined wisdom that we felt we could offer to this discussion.

CHAIR - Thank you, Anthony. Is 'Tony' okay, or is that not what we should refer to you as?

Mr POINER - Tony is fine.

CHAIR - Thank you. I appreciate that very much. How is the code of conduct you said the ABGA has put that together being distributed? Where has that gone to, Tony?

Mr POINER - It took a long time to draft it up in the committee. It is now starting to be distributed to members. It has been sent out to all our members for comment at the moment. We were hopeful that we might be able to move it from a draft to an actual code of conduct at a berry quest, which is a conference we have coming up in February in Launceston. We also have our annual general meeting so we will be able to move it from a draft to a code of conduct which we stand behind.

CHAIR - That code of conduct identifies clearly which processes should be taken to ensure good security? Does it go into what should happen if there is an outbreak?

Mr POINER - No, it does not specify in detail what you are doing in terms of an outbreak. It does refer to a range of other sites, more scientifically expert sites in the departments across different parts of Australia. No, we are not a technical organisation. We do not have contingencies on every level.

CHAIR - It has been raised during our enquiries that there needs to be documented information provided to all growers on exactly what they are required to do if an outbreak or suspected outbreak is detected on their property.

Mr POINER - We would be happy to include a reference to such a set of instructions in our code of conduct.

CHAIR - To me, it would seem be a good way to go. The committee can't tell you what to do and what not to do. The committee may be making certain statements of its position in relation to a code, I would have thought. We will address that because it has been raised with us. I appreciate that and I will open it to other members.

Ms ARMITAGE - We have heard previously regarding airborne spores and Tony was mentioning it. I wanted his opinion on whether they do travel hundreds of metres or hundreds of kilometres, what is his understanding about the spores for the blueberry rust?

Mr POINER - I have never watched a spore. My original training is scientific so I would make a comment like that. I hear from people who I would regard as expert in this, particularly in places such as Oregon and Florida, and I have heard from people in both those places that it travels much more than hundreds of metres, it can travel tens of kilometres. The full range, could it travel thousands of kilometres - I can't answer that question.

Ms ARMITAGE - Thank you, so it is more than hundreds.

Mr FINCH - Anthony, you are in New South Wales?

Mr POINER - I live in New South Wales but we have no farms in New South Wales. My blueberry farms are in Queensland, Western Australia and Tasmania.

Mr FINCH - I see. Hypothetically, if we were to upgrade protocols in Tasmania in respect of holding out blueberry rust, clearing up what is here now and then holding blueberry rust out of the state as best we can, would that be a better stance for us to protect our clean, green brand, which travels, in a marketing sense, across so many other areas of operations in Tasmania?

Mr POINER - There are two parts to my response to that. First, whether rust is in Tasmania or not, I do not think it has any impact on Tasmania's clean, green status in international markets. It does, from a regulatory perspective, in Victoria and South Australia but to no other states in Australia. Rust does not significantly impact Tasmania's clean, green reputation.

Second, trying to jump on it and eradicate is a wonderful thought but I do not think that would work. It has not been known to work anywhere in the world and containment is a strategy that has worked elsewhere in the world. Eradication runs a lot of risks. One thing I hear people say is the only reason some places have not blueberry rust is that they haven't looked hard enough. Whether that is true, it is a good way to look at it. One should be vigilant but one should not be scared of it because I don't think it has a major negative impact in the long run and it can be managed. There are some diseases and pests we should be more fearful of, but blueberry rust isn't one of those.

Mr FINCH - Your reference to Oregon - we have heard that reference before in respect of what they do there - how does that compare with Tasmania, not so much for New South Wales

and Victoria? Is it drawing a longbow to link us with the climate, for instance, of Oregon, or the soil conditions?

Mr POINER - It's not a longbow at all, Oregon is very similar. It probably gets a higher maximum, from my experience going there. It was in the high 30s when I was last there earlier on this year. Other than that, the same sort of varieties that thrive in Oregon will thrive, I strongly believe, in Tasmania, and they do. It is a fairly similar climate. It is different because it is part of a mainland mass, not an island, but beyond that it is pretty similar.

Mr FINCH - On the subject of your membership, it is interesting you have 22 members in Tasmania, yet Fruit Growers Tasmania has only four blueberry growers registered with them. I am wondering what the attraction is, why be a part of the ABGA? Is it because your fees are low?

Mr POINER - Why the attraction? Why did I join? Why do I think other people joined? If you are growing blueberries it is really good to share experiences with other blueberry growers, and to try to pool resources because we are focused on expanding export markets. We have made significant investments into getting back into Japan. Tasmania can still export to Japan. We are also putting a major effort into bringing up the export into China right now. If you are a blueberry grower, being a part of that is valuable because blueberries are growing very, very fast in Australia. With increased production there is substantial negative pressure on prices. We need to look for alternative markets and it is a good thing to do anyway.

Our fees are low, $165, but we also have a voluntary levy you can choose to pay. The bulk of our members do pay that levy, which is 20 cents a kilo, and it is voluntary.

Mr FINCH - Anthony, how long have you been on the board?

Mr POINER - A year-and-a-half.

Mr FINCH - You are a relative newcomer as far as the board is concerned. You might tell me how many members are on the board?

Mr POINER - There are eight members.

Mr FINCH - Like your good self, are they relative newcomers to the board?

Mr POINER - No. We have had a little bit of turnover on the board. Two of our long-time members left, one a Tasmanian and another was a New South Welshman, but we do have one of our most experienced members on the board. He has offered to stay there to help us with this transition. As you quite rightly point out there is a bit of transition in the industry association itself. I am the newest member.

Mr FINCH - We have had mention that Costa is having a greater influence on the ABGA in this day and age. Would you like to comment on that?

Mr POINER - One of the committee members is from Costa. I think we have robust opinion put forward on the committee. We value that, not in a negative way but because we believe it is constructive. I certainly don't feel I kowtow to what the Costa representative says, and I do not believe my colleagues do. That said, Costa has been a great positive force for our industry in terms of how the industry has grown over the past 15 or so years. Costa Investment Group has

been quite open in sharing its experiences and so forth. I would say that it does have a strong influence on the committee and the industry, but more in a positive sense, in my experience. I certainly do not feel as though there is any manipulation of the committee's views because of Costa.

Mr FINCH - Are they the biggest player in Australia?

Mr POINER - Yes, they are.

Mr FINCH - What would you suggest, 50 per cent, 80 per cent?

Mr POINER - No, I would not suggest 50 per cent to 80 per cent. Costa markets through Driscoll's. It would be my guess that Driscoll's might constitute 45 per cent maybe, or maybe a bit more, probably a bit more than that of production, of which Costa might constitute 30 per cent, or 25 per cent of the total production in Australia.

Mr FINCH - Would 'own' be the right word to use? Does Costa own 90 per cent of Driscoll's?

Mr POINER - No. Driscoll's is a privately owned US-based organisation which owns a lot of varieties across different sorts of berries. They have a joint venture with Costa in Australia.

Mr FINCH - A joint venture. What are you suggesting, a 50 per cent split each way?

Mr POINER - I think the way - I do not actually know the detail of the structure. I do not believe it is a technical joint venture. It is a venture whereby Costa does the growing and Driscoll's does the marketing.

CHAIR - Correct me if I am wrong, but is containment the better way to go, as opposed to eradication? Eradication has its problems.

Mr POINER - We do not know where it has been successful.

CHAIR - Eradication?

Mr POINER - That is right.

CHAIR - Sorry?

Mr POINER - We do know of many situations. Blueberry rust is in most regions of the world. In most regions in the world it is able to be contained, or at worst, managed. By 'contained' I mean kept isolated to a small number of locations, or managed. It is across multiple locations, but it is able to be kept at bay, so the negative impacts are not felt.

It is a doable strategy. It is one that could work. It has the benefit of not causing - if you were going to think about investing either varieties or money into Tasmanian blueberries, through no fault of your own, you might end up with an incursion of rust and then you have lost your investment.

CHAIR - I hear what you are saying. Let me just put this position to you. In the initial outbreaks in 2014, the department here saw, on the evidence that they had at that time, that eradication was the way to go. Consequently, plants were removed and destroyed. Then we had the outbreak in 2016 that Costa was involved in, where a totally different approach was taken.

From the information and evidence that you have, would you say now that the process used in the 2014 outbreak was not the right process, that there was a better way to manage that, as was identified, by containment?

Mr POINER - I did not have the facts that they had at their disposal back in 2014. I was not there. But 20/20 hindsight is a wonderful thing, but in short, yes.

CHAIR - When you say that eradication brings with it its problems, it does, but those problems would be to the properties on which these plants are, is it not? In Costa's case, it would have meant, the destruction of a large number of plants. For them, there would have been problems and issues. But the other blueberry growers in this state, I think on the information we're getting, would have been comforted from the fact that they could just about be satisfied that the rust problem would have been removed through eradication. Is that an unreasonable proposition?

Mr POINER - Yes, I think that is an unreasonable proposition. You could certainly remove the plants, sure. Because it is a highly transferable spore; it is transferred by on the breeze, as well as by clothes and any other equipment that is moved around, because there is a whole range of other plants that are host to blueberry rust, including a whole range of plants that are common in Tasmania, I think you wouldn't be able to eradicate it. You might be able to remove a whole lot of blueberry plants that you can see have evidence of it, but I think it would still be there.

CHAIR - Thank you for that. Whilst it is said that other plants in Tasmania like rhododendrons and azaleas and others that rust will live with and live on, as I understand it, none has ever been identified in any of these plants. You might have more evidence than I do. The other point, while we're talking about eradications as with Costa, what about defoliation? Was that not a process that could have been taken instead of absolute removal of the plants and destruction of the plants?

Mr POINER - Yes, definitely. In answer to your first question, I don't have any direct evidence of it being on a rhododendron or hemlock or any of those other sorts of species, of which I'm sure you've all heard about. I have a fear of that, but I don't have any evidence of that.

Would defoliation help? Yes, it does. It helps very strongly in a containment or management strategy absolutely. Rust it's quite obvious on leaves. You can see the spores if you are trained to look for it. The simple and best method of reducing any impact of rust on plants is to remove those leaves, either by spraying to kill the spores or to actually literally pluck the leaves off, transport them out of the nursery and destroy it. Or you could just simply defoliate the whole lot and somehow get all of the leaves that are on the ground. I don't know how you would do that.

CHAIR - All of these processes are interesting. What business do you have direct, say, with Biosecurity Tasmania in relation to the blueberry rust in Tasmania?

Mr POINER - When I first heard about this incursion, I and my product technologists, who were instrumental in assisting to get the ICA-31 process set up for Queensland, offered that

assistance to Tasmania in the early days. Subsequent to that, I have attended a blueberry rust briefing with other growers. They asked for my input to it, which I provided. I sat and listened to it and have abided by the processes that they've set up, such that we now have property freedom.

CHAIR - Inasmuch as Costa has a position on your committee, and you've already indicated to us that they're very robust in that position in that it is one of the biggest growers in the country, are not the positions and decisions taken by your committee not compromised by that fact?

Mr POINER - I don't think the different perspectives, whether they be from large growers, small growers, growers from different parts of Australia, I think that all parties should have the opportunity to put their positions forward. One of the attributes that I note about our committee discussions is that the people do take the time to look at the arguments, do think about the issues and are quite prepared to debate them. The fact there are robust discussions is a positive not a negative. Costa is a major influence in Australian blueberries, that's is true but I do not think it has a disproportionate sway over anything they've done - quite careful not to overplay their hand. That is a feeling I have.

CHAIR - Do you have any other growers on your committee of blueberries in this country?

Mr POINER - Yes, all of our committee members are growers.

CHAIR - All growers, large and small, is that across the board?

Mr POINER - Yes, there are large, small and medium.

CHAIR - Are there any Tasmanians on the committee?

Mr POINER - There are only two committee members who currently grow in Tasmania. You are going to chuckle when I say the first one, which is Costa and the other is me.

CHAIR - Who was the second one?

Mr POINER - Me, my business. We grow in the Forth region near Devonport. Until late last year, our president was a very small grower but he no longer grows blueberries. He resigned late last year, having given sterling service for 15 years. There are two growers. We have our elections coming up in February so we will be encouraging people to put their hands up of all shapes and sizes.

CHAIR - Thanks, Tony. I will go to other members now.

Mr FINCH - In respect of smart berries, Anthony, did you say you grow in Western Australia?

Mr POINER - Yes.

Mr FINCH - What is the situation there with blueberry rust?

Mr POINER - Blueberry is known and it is managed.

Mr FINCH - Through what process?

Mr POINER - The best method is to spray on a regular program. There is an excellent set of sprays you can use which is a lucky thing. Not all have good spray options. That is the most used method.

Mr FINCH - That wouldn't be suitable for organic growers would it, Anthony?

Mr POINER - No, it would not because the sprays we used do come out of a factory and they would not be suitable for organic growers. There are methods for organic growers to use but the one I mentioned, spraying, is not one of them.

Mr FINCH - You are not an organic grower?

Mr POINER - No.

Mr FINCH - Please go on about Western Australia, how they manage blueberry rust.

Mr POINER - The first was to monitor, monitor, monitor. In our orchards, I have somebody, a horticulture manager, on each of the farms. Their role is every week going through all the orchards and looking for any pest diseases, growths, issues, differences and those things. Whenever we see it, we will jump on it immediately. More importantly, we have programs in place whereby we spray on a regular cycle. If you can see new growth for six unprotected leaves by our spray, then we spray.

Mr FINCH - How do you work in with Biosecurity in Western Australia?

Mr POINER - We grow in Western Australia and sell within Western Australia. There are no particular challenges for me and my operations. I know others export from New South Wales to Western Australia with the main pest they have to control for is the Queensland fruit fly. They have to use cold treatment on mefabrunna.

Mr FINCH - I am having trouble hearing what you are saying, but I will be able to check the *Hansard* on the detail.

Mr POINER - I am sorry, perhaps it is the way I am holding my mobile.

Mr FINCH - No, that's okay. I am curious about biosecurity in Western Australia. Are you suggesting that because they only sell domestically there is not the involvement compared to if they were exporting?

Mr POINER - Yes, I am saying that, or exported to Victoria and South Australia. There is no problem if you want to export internationally.

Mr FINCH - What about to other states? Is biosecurity involved there?

Mr POINER - We do not do it, so I cannot comment too strongly. We have large farms in Queensland. If rust is found in Queensland - and so the way we export to Victoria quite a lot and to South Australia - we have to follow the ICA-31 protocol.

Mr FINCH - Sorry, I just didn't catch that last little bit. You have to follow what?

Mr POINER - The ICA-31 -

Mr FINCH - Wait a moment. You have just dropped out, Anthony. We have just lost our audio with you.

Mr POINER - They have -

Mr FINCH - You are back now.

Mr POINER - Maybe it is where I am standing in this room. I will stand on one leg with one arm in the air.

Mr FINCH - That is better.

Mr POINER - When we export from Queensland to Victoria or South Australia, we use the ICA-31 protocol.

Mr FINCH - That gives you the guidelines as to what to look for, how to handle it, how to package it and those sorts of things?

Mr POINER - It does. Biosecurity Tasmania has set that up for Tasmanian growers as well.

Mr FINCH - Of recent times?

Mr POINER - Yes, in December.

Mr FINCH - We talked earlier today about ICA-29, which used to be in place around 2011 and it was changed. It was suggested it was not a change for the better. It seems that protocols have been increased now. Would we in Tasmania have gone to what you are suggesting is ICA-31?

Mr POINER - I cannot comment on ICA-29 but I know that we use ICA-31 in Queensland and we do not have to in Tasmania in my farms, because we have property freedom. I do know that they have established that process for those who have had rust found in their farms.

CHAIR - Thanks very much for that, Anthony. I just wanted to say, we are running out of time. We appreciate very much you changing around to accommodate us. That is very much appreciated.

Moving forward, what should the committee be closely looking at, or what changes might or should be made in this area? Is there anything at all that comes to mind with your background and your knowledge as a grower in this state would have?

Mr POINER - Helping growers to better recognise rust would be an excellent training program. That would be point 1. Point 2 would be setting up better protocol and security practices. We could work with any agency within Tasmania, or the ABGA could work with any agency to assist with that. I think general good biosecurity practices and improved biosecurity practices would be very good in Tasmania.

Mr FINCH - Why would it be important to go to a management and containment regime rather than go the extra yards and get eradication into Tasmania ? So that we, as I say, protect that clean, green image that we trade on in so many other areas, other than fruit growing.

Mr POINER - I believe, and I'm one of these people, that the best method of eradication is to pull out plants. I believe that eradication creates a significant risk for investment into growing blueberries in Tasmania. As one grower, I would be very nervous. I am approximately 15 kilometres to the east of Costa farm at Sulphur Creek and the wind comes from the west. I would be very nervous about expanding my blueberry operation in Tasmania, which I will otherwise do, because I will always be sitting there with the likelihood that at some point blueberry rust will be found again. It's a deterrent to investment and it puts risk onto growers. We are a grower representative organisation and we don't want risk on our growers.

CHAIR - Thank you so much for accommodating us. We appreciate it in the way you have answered the questions and the information you have provided to us. It will certainly help the committee. Thank you again, we appreciate it.

Mr POINER - It's been a pleasure to offer any assistance.

CHAIR - Tony, should I say if there is anything you have missed you might want to pass to the committee, please forward it on, there is no issue and I am confident the committee would receive it. Please do so if you feel you have important points to make to us. Thanks.

THE WITNESS WITHDREW

PUBLIC

Mr TONY WAITES, WOODLEA NURSERY, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Thank you very much. This is a public hearing and it is being recorded and it will go out as public information. However, if at any stage here at this hearing you find yourself in a position where you feel evidence that you would like to give should be taken in confidence, in camera, please refer to that. The committee will then make a determination as to whether we proceed in camera.

While you are in here you have parliamentary privilege. You can say as you want and that information and evidence is privileged. There are no responsibilities falling back on you in relation to any issues that could be taken. However, once you leave this area, this table, you are on your own again. It applies while you are here giving evidence to the committee. That is done to give people support and to give them confidence in the processes that we have in place.

The information for witnesses has been provided to you and you would have read that?

Mr WAITES - Yes.

CHAIR - That is great. We have received a submission from you, Tony, thank you for that. What I will do at this stage is give you an opportunity to expand on any information you might have given us or any information that may have come up since you provided the submission and following that we will go into a questioning.

Mr WAITES - There is nothing I need to expand on. You have all read it and I don't need to go through the information?

CHAIR - No, we have that. You might want to expand if you want to do so.

Mr WAITES - I can mention the key points. I'm the proprietor of Woodlea Nursery. I have a bit of a vested interest in the blueberry industry in the sense that I supply plants to them, but I am not a blueberry grower; I don't sell blueberries.

I took an interest in this because Biosecurity Tasmania and some of the independent growers were having an exchange via emails, and because I'm in the industry I was getting those. I detected a lot of antagonism and a lot of bad will. I have a research background so I am interested in the science of it. I also have a little bit of distance because it doesn't directly affect me. I looked into in a far bit of detail and that's why I ended up trying to understand the facts and why I questioned Peter Cross from Biosecurity Tasmania when I saw him in Exeter.

All I did was go through the information that Biosecurity Tasmania had been sending out. They send it out to all of the people in that group, all of the blueberry industry parties. I wanted to understand what they were saying and then get my own understanding around that. That is the background. That speaks for itself in the content of what I thought was pertinent to say.

CHAIR - That is one of the reasons the committee called you in, we would like to hear from someone who sits on the other side of things, rather than a grower. We found you would be important to pass certain information onto us and to answer questions we have for you in that area. We appreciate that very much, Tony. Thank you.

You identified some issues in your summary. The first suggested Biosecurity Tasmania adopt a more comprehensive rust containment and eradication strategy. We have received a lot of information in relation to that. I don't know whether you want to comment any further? Blueberry rust was new in 2014 and Biosecurity was living and learning at that time, to be fair to them. What do you think they could do now, when you say, adopt a comprehensive rust containment and eradication strategy?

Mr WAITES - I am referring to the 2014 outbreak. They acted fairly quickly and went in and eradicated. There was a small outbreak, they caught it early, and they went in and did whatever they needed to do to get rid of it. They ripped plants out of the ground and destroyed them and destroyed all the rust containing material. That is the most efficient way but there are risks in doing that. If you disturb a plant that has rust spores on it, there is a risk you will spread it but the Biosecurity people are extremely good at what they do. When they come and do their inspections, they are extremely thorough, they wash down and they do it in a very clean way. I have confidence they can do that.

In the case, the current outbreak, the difference there is, a couple of things. First, the outbreak: Biosecurity's attention was not drawn to it immediately. I suppose it is fair enough that the initial grower who had the incursion sent the material they suspected of being contaminated to an independent laboratory and had them assess it. They contacted Biosecurity Tasmania when they realised it was blueberry rust. The problem is that it took two or three weeks. As everyone surrounding this has said, because the rust goes through its life cycle very quickly there is that spread and there is a problem if you do not catch it immediately.

The other thing problem was that it happened in May. It was in the growing season but then we went into a winter and in a winter the rust does not grow at all. It sits dormant, the plants drop their leaves and it is a real opportunity. My frustration is with that opportunity. If you were going to do something that would have been the optimal time to do it. When you have cold, you have no host material for the parasite to grow on and it could have been dealt with.

When I say 'more comprehensive', what I am referring to there is that there is a number of strategies they could put in place in regard to the philosophy of their treatment. There is a grey area between containment and eradication. You are trying to suppress active rust spores in both cases but in eradication you are saying you are trying to get rid of it completely. In containment you are saying it is too hard to get rid of it completely, let's try to minimise it. That component is common to both of them. If you look at why it is difficult to get rid of the rust spores, there are a couple of things. One is that some growers in the state grow evergreen blueberries and that supplies host material for the rust to grow on all year round. When you see that, dealing with those trees has to be a really high priority. There is a number of ways. You can rip out those evergreen plants but I do not think anyone is suggesting you do that. Another option is, as I am sure you have discussed, the issue with defoliation. My interpretation of the fairly scant evidence and study information suggests controlling with defoliation is, at the very least, going to assist in containment. You are going to have less of a problem with blueberry rust after you do it and hopefully, based on the results of Rosalie Daniel, there would be a hope the rust is killed completely. If you can defoliate the plants within the four to eight weeks there would be every hope you would kill the outbreak.

CHAIR - As a grower, Tony, how many plants would you grow? Do you propagate in your nursery or bring the plants in? Could you explain that to us?

Mr WAITES - We basically take plant cutting material from a mother plant. Taking cuttings and treat them as close to sterilised as you can so there are no fungal spores on them or anything like that and then propagate them. Propagating means we put them in a sterile medium and then supply heat under them to encourage roots to develop. With blueberries, the process can take six months or even more. They are slow growing and slow to get going. In a typical year we would do around 25 000 blueberry plants.

CHAIR - You talked about inspections being done. Is the inspection done by Biosecurity for rust only, or rust and other disease?

Mr WAITES - That is a specific thing introduced. Previously, Biosecurity did not come in to inspect. Since the incursion they come three times a year. They have been twice already this season and they will come with a group. For us, because there is a lot of material to look at, they will come with four people. They will get dressed up in their overalls and spend the whole day there inspecting.

CHAIR - Is it right to say you would have other plants in your nursery that carry rust as well, or not?

Mr WAITES - No.

CHAIR - So it is only blueberries?

Mr WAITES - Yes.

CHAIR - You do not carry rhododendrons and azaleas and all of those things?

Mr WAITES - No. From my understanding, the evidence of the extent to which the rust can spread to the other Ericaceae plants is fairly limited. I do not think there has been rust spreading from a blueberry plant to a rhododendron. I have never heard of that and have seen papers where they have said it does not spread.

Ms RATTRAY - What about vice versa? From rhododendrons to -

Mr WAITES - I do not know.

Ms RATTRAY - You do not know.

CHAIR - So far this committee has had no evidence to show where it has occurred, but it can occur.

Mr FINCH - Is it a furphy or a red herring?

Mr WAITES - The short answer is nobody would know. In a laboratory environment you could take a rhododendron plant and place the spores on it. In that situation, the rust would probably survive. The two plants are close enough relatives. It would supply the nutrient balance and the PH they need. All the biochemistry would probably match. The movement of rust - in the report from Biosecurity they describe a situation where the rust can spread very readily. It spreads in the wind and this sort of stuff. I think it is true it does do that, but I would have thought

if it spreads so readily and was such a good climate for the rust to be in the whole state would be full of the rust by now.

It has been here for 18 months to two years and it is now at four sites all in the same region. When the second outbreak first came there was a biosecurity meeting in Launceston. There was discussion the rust could have travelled from the mainland to Tasmania by wind over Bass Strait. If that were the case, there is a theoretical possibility it now would be in New Zealand. It would be throughout the whole state. The two things do not match up. They seem to have fairly good control of the outbreak, treating them with the chemicals. Perhaps our climate is cold enough in the winter so there is a natural suppression of it for a portion of the year.

Look at the initial incursion in the major commercial blueberry farm, it looks like they have set up the ideal conditions to grow blueberry rust. They have tunnels, where the temperature is higher and very humid. There are evergreen varieties in there. Everything in there is saying, 'Please grow blueberry rust.'

I have not seen any information where they think those rust spores came from. Maybe it was still here from 2014. It also is the case material has come from interstate. Why does blueberry material come from interstate? I do not know.

Mr FINCH - We have had some evidence this morning the blueberry spores would travel to only a distance of 300 metres.

Mr WAITES - Yes.

Mr FINCH - Is the whole on the wind thing another red herring to try to build up the possibility it is everywhere?

Mr WAITES - If you have blueberry spores that can travel, let us say a kilometre, whatever it is, there is a potential because they are proliferative. They generate millions and millions of spores, spreading is like an exponential growth. If you took the spores and chucked it all through the blueberry farms and let it go unchecked, it would not take long for it to spread through the whole state.

If you allowed people unobstructed movement between them, because spores can travel on clothes, it is of great concern. Blueberry rust is of great concern, but does not means it is not possible to eradicate it.

CHAIR - The spore is a living micro-organism or whatever you would like to call it. Obviously, it increases rapidly.

Mr WAITES - Yes.

CHAIR - If you had one spore on a plant, that could grow -

Mr WAITES - It has to go through a generation of growth. Think of a spore like a seed, and that spore is a fungus like a mushroom. If you grow a mushroom plant, once it is matured, has a fruiting body and drops its spores, they count in the millions or billions. There is huge potential. Many of them will die, but they are extremely light and can travel on the wind. That is their evolutionary tactic so they can spread. Yes, it is dangerous.

Ms RATTRAY - On biosecurity. We have been told before 2011, Tasmania had a very secure biosecurity system called ICA 29. Then it was relaxed for a time. We have been informed it has been reinstated to ICA 31, a higher level of security. Do you have any knowledge around that, Tony?

Mr WAITES - No, not a lot. When we are importing any material, we have to deal within that framework. Because we propagate our own material, we do get seed and grates in, so I do have to operate within that framework. My knowledge of it is practical, not in any depth.

Ms RATTRAY - It has been suggested, and you did touch a little bit on Biosecurity and their workforce that come to your site, about it being rather under-resourced at various times. Do you have any knowledge in regard to that?

Mr WAITES - I know from talking to the Biosecurity guys, for them to be at site with us means they are under-resourced in other areas. I do not think it is under-resourced in the sense when they come to us, I am pretty confident that if we had fungal spores or disease on the property, they would probably find that. There is always a risk. We would probably have 30 000 or 40 000 plants and 30 000 cuttings all at the same time, and there would be a risk that they might miss it but I think that risk would be pretty small. They are fairly thorough.

Ms RATTRAY - It has also been suggested that blueberry rust is very hard to detect.

Mr WAITES - There are issues with identification, but once it is fruiting and active it has a fairly distinctive look about it. You can distinguish that from the plant suffering drought or whatever, or from nutrient deficiencies - it has a specific look to it. If they found anything that was questionable, they would just take the material and send it to the plant pathology lab. That aspect of checking for the presence of the disease, they would do as good a job as you can do under the practicalities of limited resources. That wouldn't be the major concern.

Ms RATTRAY - We have heard also, particularly this morning, if Biosecurity or the industry were to go back to a full eradication that that would undermine the industry. People wouldn't invest if they thought having blueberry rust means they might lose the entire crop. Do you subscribe to that?

Mr WAITES - I believe there is huge uncertainty. I am dealing with growers and potential growers, people who want to set up blueberry farms, all the time. I get a lot of people ringing up interested in setting up a farm. They want to buy 5000 plants or whatever, and there will be concern or uncertainty there. If you set about eradicating the disease, surely you are moving in the direction of making a more stable situation for anyone to set up a business. Definitely that aspect of my business is much more uncertain with that hanging over us.

Mr WILLIE - How many growers do you supply?

Mr WAITES - Generally, if you are setting up a blueberry farm, the major growers will go through Driscoll's, or someone like that, but we'd probably sell to four to six a year, I suppose. They would be different people every year. They will set up a farm, and generally people will put in a hectare or a couple of hectares, so they will buy a few thousand plants - 5000 plants - something like that, and then they might come back in five years' time and want to expand.

We would have sold to 20 to 30 growers over the time - maybe more, I'm not sure.

Mr WILLIE - Have you seen a decline in those numbers?

Mr WAITES - No.

Mr WILLIE - Since the rust has been in the state?

Mr WAITES - I suppose there has been more hesitancy in the people who are interested in doing it. The numbers vary so much from year to year anyway; I wouldn't be confident in saying that there has been a decline in my business of growing blueberry plants since it has happened. I don't know. As a gut feeling, it is not a huge decline, put it that way.

Mr FINCH - Tony, what is your research background in?

Mr WAITES - Medical science.

Mr FINCH - So it is not related to -

Mr WAITES - No.

Mr FINCH - But the same sort of mindset?

Mr WAITES - I have a medical science background. I moved into a nursery 11 years ago and I found everything about it very similar. If you have scientific way of approaching things, you ask questions. If no-one can give you the answer, then you delve further to get the answer. We had practices at the nursery where we used certain fertilisers or used certain chemicals. I would say, 'Why?' and they would say, 'We've always done it that way'. My wife is also a scientist. We would explore alternatives, look at what is more cost-effective and more effective and you make huge changes to your business. That is the same with this.

To summarise, the feeling I get from the biosecurity review, there is a lot of feeling and not a lot of science to back it up. There is a lot of strongly held opinion, but I don't understand why that is so strongly held. I get that if a major grower, a huge grower, has an incursion in their property the difficulty of dealing with them and the power that they have is larger than if it's just a backyard person who has 50 blueberry plants. It is difficult to say, 'How do we solve this problem?' and to discuss difficult things like, 'Do we have to start ripping plants out?'. It is very difficult and I understand that. That shouldn't be overriding - and I'm not saying that it is, I don't know, I have no idea how they make their decisions - the evidence to say that there is no alternative to a wait and see containment program that just waits for it to slowly spread throughout the whole state, which is my feeling of where we are at now, it doesn't seem to be strong evidence to me.

Mr FINCH - Tony, who are your competitors? You are growing these 25 000 plants a year and who are you competing against?

Mr WAITES - There's another grower in Karen Brock; you have probably spoken to her?

CHAIR - Yes, she's given evidence.

Mr WAITES - She grows blueberry plants. Blueberry plants are brought in as tissue culture. I think Driscoll's or Costa do it that way. They will bring in the material as sterile clonal material and they'll get a grower. There is a grower on the north-west coast that deflasks them - basically takes tissue culture, puts it into a growing medium and then grows them up into a plant. There are a few people who do it. The last of my knowledge is that it still comes in from interstate. They will send plants in from interstate.

Mr FINCH - How do you start off with your plants? Are they ones that you now have or do you still import plants into Tasmania?

Mr WAITES - No.

Mr FINCH - You have all you need.

Mr WAITES - We have mother plants and then we just multiply those. If I have a particular variety of blueberry and I take a cutting from that then that is identical to the mother, so it has the same genetics. If I grow another one then they will be the same plant.

Mr FINCH - If somebody wanted to set up in competition to you, they want to come in and join in on this money-making opportunity -

Mr WAITES - Please, I know a nursery where they can buy them.

Mr FINCH - Would the mother plants they might bring in all have to go through a biosecurity check in Victoria or in Tasmania before they comes into the state?

Mr WAITES - Yes. The options they would have would be either to source material in Tasmania or to import material. In the last several years, we have got material in on one occasion and that process is fairly - cursory is too strong a word - it's not a hugely rigorous inspection. It is basically 15 minutes of a biosecurity officer's time in Victoria, a plant health certificate and it gets sent in the post.

Mr FINCH - Is it a visual inspection?

Mr WAITES - Yes.

Mr FINCH - Would that need to come with certification that it's been sprayed with the appropriate sprays for blueberry rust?

Mr WAITES - Yes, absolutely.

Mr FINCH - Wherever that's come from, tick, it's been sprayed and it won't have the invisible blueberry rust spores lurking everywhere.

Mr WAITES - Yes, as long as it comes in a dormant state then I would say that would be the case.

Mr FINCH - A dormant state means, what, it has to come in winter?

Mr WAITES - Yes, it would have no leaves on it. If there's a leaf on the plant, it could have rust spores attached to that leaf that hasn't shown the disease yet. If you treat it with a fungicide, the chances are fairly low. If you import material, follow all of the guidelines, get the quarantine certificate, I'm fairly confident that that should be disease-free.

Mr FINCH - Could the spores be on the stems?

Mr WAITES - I don't know. My understanding of the science is that the spores generally are on the leaves, that the host material is leaf. That is the whole idea behind defoliation; the whole idea that the disease can't propagate in the winter because there is no leaf material.

Mr FINCH - We have evidence that this can be transmitted by hands or clothes. A picker coming from New South Wales is going to travel, maybe by plane, but it's not as if they are host if they have leaves all over them and -

Mr WAITES - You could sit next to someone on a plane who was a picker and brush against them and you could have spores on you - absolutely true. Plant material is less likely to carry the disease, if it has been treated correctly, than a picker who has come from New South Wales - absolutely.

Mr FINCH - How long would those spores be able to live?

Mr WAITES - My understanding is not very long. Maybe a week or a couple of weeks.

Mr FINCH - That's quite a time, so you could transfer it.

Mr WAITES - Yes. That is the concern and why the latest encouragement from Biosecurity is that every farm sets up farm biosecurity protocols, so if you've got pickers coming you supply them. If they bring in clothes, you wash the clothes and you make them change into those clothes and you have footpaths and all that sort of stuff to try to isolate your plant material from potential factors.

Mr FINCH - Tony, your understanding is that when you wash the clothes it removes the spores from the clothes. But where do those spores go? Can they still survive in a water environment?

Mr WAITES - I guess. I don't think anyone knows with blueberry rust; I don't know of anyone who has looked at that. When I had a discussion in Exeter with the Biosecurity guy, my feeling was that the knowledge base on blueberry rust is very low. A study had been done on a few plants and they'd seen that defoliating the plants would cause the blueberry rust to die. If you defoliate a plant and keep it defoliated for four weeks and then it puts out new leaves, it won't show the rust. That's my understanding. That was done in a small trial on a few plants in a greenhouse and physically pulling the leaves off. That's what we've got, and the comment from Biosecurity or from DPI New South Wales is that's not enough information, but I'd say that's all the information we've got. So we're working on limited information but that information is supportive of that idea. Why haven't we looked at it further, why aren't we doing studies to do it? I don't have the money to do it but surely it would be very easy to start investigating that.

Mr WILLIE - What sort of scale would you need for that evidence to stack up?

Mr WAITES - We've taken our first baby step. The next step would be to say let's look at it in the field, so get some mature blueberry plants, isolate them so you're not going to spread the rust further, and you would be able to treat them when they're growing in the ground. If you treat a mature plant, that gives you a fair level of confidence that that would work in a broader situation. All sorts of issues have been raised about how difficult it is to get 100 per cent defoliation and what do you do with the leaves when they fall off and all that, but if you can keep that plant defoliated the chance of spores being there is much lower.

Mr WILLIE - Should Biosecurity conduct that sort of trial before any change in a strategy, in your opinion?

Mr WAITES - The problem is what we're doing at the moment is nothing. We're treading water. I would say they should conduct the trial but it's not just that one thing. It's not saying defoliation will solve all our problems; it probably won't. When I spoke to Peter in Exeter, I said to him, 'If you did defoliation on those plants, is it likely it would work and you would kill the spores?' He said, 'Yes.' If you defoliate for eight weeks on a blueberry farm -

Mr WILLIE - In winter?

Mr WAITES - Yes, in winter. You don't need to do it for most of the Tasmanian plants anyway, but in any case where you don't have defoliation for eight weeks, use a defoliant, get rid of it. This is where you have the rust already there, so you can take a few risks because you have a problem and you have to solve it. Defoliate them for eight weeks and then even if it doesn't completely eradicate the disease, it will suppress it to such an extent that all of the other measures you use, you will be operating from a tiny residual level of the disease and you'll be 100 steps further down the track. The chances of you then being successful with eradication will be that much higher.

Mr WILLIE - You would still have that sample there though and you would be heading into different climatic conditions -

Mr WAITES - Okay, so you have two options. One is that you treat them with fungicide, so you're suppressing the symptoms but the disease is probably still there, or you try to eradicate it. The goal in both of these cases is that in 12 months' time we haven't got 50 farms with blueberry rust. I know that if you defoliate the spread of the disease is going to be less because you're dealing with a less active population of the pathogen.

Mr FINCH - And defoliation can be done without disrupting your product and your harvest?

Mr WAITES - Well, there might be a certain amount of disruption. One issue is that if you're talking about the evergreen blueberries, my understanding - and I have a very incomplete understanding - is that those evergreen varieties are there for pollination. You put in evergreen varieties because they'll increase your cross-pollination so you'll get better yield on the other varieties. They may be picking the fruit as well - I don't know. If you knock those leave off they will still produce new leaves and flower and you'll still have the same thing happening. If you're defoliating a plant and you're knocking it about, then maybe that plant is not going to be as vigorous and you won't get the same effect. That is possible.

Mr WILLIE - We've had evidence to the committee that evergreens grow faster and have a higher yield by about 10 per cent. Is that true?

Mr WAITES - That they have a better yield than -

Mr WILLIE - They grow faster and can have up to 10 per cent higher yields than deciduous trees.

Mr WAITES - Yes, possibly; I don't know. If that were the case, why do we grow predominantly deciduous blueberries in Tasmania? I don't know.

Mr FINCH - What do you propagate? Both or just deciduous?

Mr WAITES - Only deciduous, but that's because that's what the demand is. That's what everybody in Tasmania plants. They do sell them at Bunnings. You can buy evergreen blueberries in Bunnings. I think they're coming from interstate, but I don't know. The first people I heard of who had evergreen blueberries was in the current incursion. There may be other people but I don't know. I'm not central to the blueberry industry. I'm basically on the side making plants and selling them into it. The predominant varieties that we grow in Tasmania are the southern high bush ones, which are deciduous, and 95 per cent of Tasmanian blueberries are grown that way. So I would think that they are suitable. As to the 10 per cent extra yield, I would say -

Ms RATTRAY - Is the threat of having blueberry rust exploding in Tasmania worth a 10 per cent yield? Most would say no.

Mr WAITES - I don't know, and I don't know if anyone knows, that if you defoliate all these plants - again, another great study - and then look at them and see what the yield is and what the effect is on vigour and health of the plant - I don't think anyone really knows that.

Mr WILLIE - Without knowing that, would it be irresponsible to do it?

Mr WAITES - I don't know. Everything is irresponsible in this situation. It would be irresponsible to just leave it. My concern in this, and the reason I got all heated before I wrote this, was because you have different players in the industry whose voices have a different loudness, and you have some people who speak very loudly and everyone listens to them. I have customers who are organic blueberry growers and you say, 'Well, you've got to use these three different fungicides and rotate them', and all this. What do the organic growers do? They have set up a business, devoted their whole lives to it and set up their business based on accessing a certain market. To them, why can I turn around and say we're not going to do anything because we think it is okay?

Mr FINCH - Do the organic farmers have a spray they can use?

Mr WAITES - I don't know of anything that is effective on blueberry rust. I don't know. There was mention of one -

CHAIR - Copper sulphate, was it? Copper -

Mr WAITES - Yes, Kocide might work, but it is not going to be anywhere near as effective as the heavy chemicals. But it is -

Mr WILLIE - You said that Biosecurity visits your property or your business three times a year to inspect the blueberry plants. Are they inspecting any other plants? Have you any other plants at risk?

Mr WAITES - No. We don't grow anything else that is of risk.

Mr WILLIE - To clarify, the three inspections only started after the incursions? They had not been there beforehand?

Mr WAITES - No. They will be ringing me for the first inspection saying, 'Are your plants in leaf?' They will wait until the plants are in leaf and then they will come. They are focusing on when there is host material for the disease.

Ms RATTRAY - Tony, I am going to ask about nursery industry accreditation. It has been suggested that not all nurseries have an accreditation process or system in place.

Mr WAITES - Yes.

Ms RATTRAY - Would you -

Mr WAITES - Not yet, definitely not. It is probably about 30 per cent of them that do, but generally they do. The problem is, like with the blueberry farms, it is the same thing with nurseries: you have everything from huge operations to something that someone does in their backyard. Obviously, if you are doing a mum and dad enterprise where you are growing orchids or whatever it is, then you are not going to pay - the expense to be accredited and have your audits and all that is quite large. There would be lots of people that wouldn't be accredited.

Ms RATTRAY - It was suggested had there been a better accreditation process in place, then the initial blueberry rust incursion may not have happened because it came from a nursery in Victoria. Obviously some processes were lacking somewhere.

Mr WAITES - I don't know whether that nursery in Victoria was accredited or not. The problem with biosecurity is that you can't cover everything. I have driven my truck across on the boat and come over and I have had people have a cursory glance and not look in. They will open the back of the truck or they will say, 'Have you got anything that we need to worry about?' I will say, 'No,' and they will say, 'See you later,' and they don't open the curtains on my truck.

The reality is that there are not infinite resources. Really, if you look at people getting off the boat - when we moved here 11 years ago my wife was towing a horse float behind our car and it had all sorts of gear in there. They opened it up and it was - I don't blame them for going into it because it was full of junk, but to do a perfect job -

Mr FINCH - Horses at all?

Mr WAITES - No horses, no. To do a perfect job, you would pull the whole lot out. In an ideal world you would be dipping everything in fungicide and you would be treating everything, but you can't do that practically. You are never going to be 100 per cent, but what you need is vigilance, inspection, accreditation, people operating under procedures that minimise that risk of spread, and then you need people with a strong hand who can deal with it when there is an incursion.

CHAIR - We are running out of time, so I ask members to keep their questions short and the answers short, Tony, if you would, thanks.

Mr WAITES - I would prefer yes and no answers only.

Ms RATTRAY - My last question, Tony. It has also been suggested that players in the industry - growers - should be more vigilant as well. Do you have a view of whether they don't take enough time to look for the rust or know what they are looking for?

Mr WAITES - I think the industry is - sorry, this is a long answer - it is very heterogeneous and you would have all sorts of players, including cowboys who don't care. But my experience of the people in the blueberry industry is that they are all - their livelihood is based on those plants. That is why they are so passionate about it. If someone 30 kilometres up the road has the disease that at any time could blow into your business, infect it and just destroy your business, I think they are pretty vigilant. That is their whole livelihood. Those small independent growers are handling their plants every day and they know their plants intimately. I don't think so.

Mr FINCH - Some stuff you have touched on is featured towards the conclusion of your submission that you made. In the concluding paragraphs there is some fantastic stuff there, which would be good for people to get their head around, particularly about eradication:

> ... does not necessitate the destruction of infected plants, except in circumstances where all other measures have failed.

Are you simpatico with eradication being in the mix of what we look to do?

Mr WAITES - Yes, the idea that we say, 'Are we going to contain it or are we going to eradicate it?' and you have to choose and forever more follow that path, I don't think it works that way. If you set about trying to eradicate, what you will be doing is controlling the disease very well and also trying to eradicate it. There was discussion I think in the TIA paper that there is a huge cost with all of the inspections, but we're already doing that anyway. Biosecurity is inspecting all of the growers. We are not going into private people's houses yet. I spent a couple of years in Darwin where we had the banana freckle disease and man, did they hit that on the head. They went at it and they ripped the stuff out of the ground. They did it protecting the industry and now they are growing bananas up there and away they go. I look at that and I say that's a response where you say, 'Here is the problem, we understand the deadly seriousness of it,' and you deal with it.

I'm not saying you should rip out all of the blueberry plants in Tasmania; that would be terrible. But being determined and resolute and setting about doing it in a timely manner would be fantastic.

Mr FINCH - With that scientific evidence, because another paragraph says:

> One of the features of the government agency reports is the lack of scientific data to support the claims that eradication is impossible.

Mr WAITES - I would say that's true. I agree that there are difficulties. In all of the papers that Biosecurity Tasmania included when they sent the stuff out, they bring up the fact that there

are difficulties. I would agree completely with that, that it is not easy to eradicate and there are going to be challenges and it's going to be hard. You've got two difficult choices. Not doing anything and then risking that the whole industry will be affected, or if that containment doesn't work, even Biosecurity Tasmania themselves say that the containment strategy is likely to fail. To me that's a bad attitude to start with. It is like, why bother doing it if it's not going to work? To me, I'd take the other approach and say let's try our best to eradicate it, then the worst case is you're going to do a better job of containment.

Mr FINCH - Chair, I know you're watching your watch. It seems this last paragraph sums up something that we are wrestling with as a committee, and I'm sure we will when we come around to our recommendations, because there are different-sized players in the market, there are different implications. You've touched on that. You say:

> Further, it seems imperative that since any strategy has financial and other impacts to all stakeholders within the industry, containment/eradication needs to be collaborative, with goals, outcomes and procedures discussed openly between government agencies and the industry.

Then it goes on, to allow decisions that reflect the wishes, the consideration of Costa, all parts of the industry, particularly the large number of independent growers in the state.

Mr WAITES - I believe Biosecurity had an opportunity to take everyone with them and they lost that opportunity. I'm not as deeply, on a day-to-day basis, growing blueberries and sending them out, so I don't see all of that market access stuff, but the lack of information and lack of transparency in just explaining what's going on - if you go to a meeting there'd be people very passionately saying, 'What's going on, what's happening?'. Surely, with something that has the potential to completely decimate people's businesses and livelihoods, the respectful thing is to say, 'Look, this is where we're at. This is what we're doing. These are the concerns we have,' and then try to have a bit of a dialogue, even though government agency cannot be told what to do by me or an independent grower. You need to ask, 'What are your concerns, is there a path through all this we can take that takes into consideration some of those concerns?'.

Mr FINCH - Have good communication.

Mr WAITES - Yes, absolutely.

Mr FINCH - That is what has been lacking, we have found, in a lot of our evidence.

CHAIR - Tony, you talked about a timely manner and referred to it in a part of your submission about the Tasmanian Industry for Agriculture. You suspected that perhaps there was a slowness in notification to Biosecurity of rust. You, as a grower, if you suspect you have rust on your property, what is the requirement and how long do you have to notify Biosecurity Tasmania of that position?

Mr WAITES - I think the current rules are that you are within your rights to independently get it assessed.

CHAIR - First of all?

Mr WAITES - Yes, and that, to me, seems crazy. To me, it seems like that part of it is very - and this is second-hand information, I don't know what happened. All I know is that there was a two- or three-week silence and then there was a notification.

CHAIR - From that comment, you would agree that if you suspected you might have rust, you should be obligated to notify Biosecurity immediately.

Mr WAITES - Yes, absolutely. That is something that is throughout the nursery industry in general. That is how we would operate. If there is any biosecurity risk, you would alert the authority to it.

CHAIR - Tony, thank you very much for your presentation today. Thank you very much for your submission; it is very important. As the member for Rosevears mentioned, you have brought out good points. That is the reason we brought you in as we have not heard too much from the growers of these plants. We appreciate that very much and appreciate the way in which you have given your evidence. Thank you very much.

If there is anything you think you should have touched on, there is nothing wrong with you providing that to us between now and later if you wanted to and the committee can receive that.

Thank you very much and a safe trip back to the north-east.

Mr WAITES - Thank you.

THE WITNESS WITHDREW.

PUBLIC

Dr KATHERINE EVANS, TASMANIAN INSTITUTE OF AGRICULTURE, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Katherine, this is a public hearing. It is being recorded on *Hansard* and it will be available for public consumption at any time in the future. Have you read the information for witnesses?

Dr EVANS - Yes.

CHAIR - Thank you. I suspect you have given evidence in other committees - I don't know whether you have or not?

Dr EVANS - No, first time.

CHAIR - You have parliamentary privilege whilst you are here at this table talking to us. Once you leave here privilege no longer applies and you stand on your own. Here you have the same privileges that we have in the parliament.

If we happen to reach a stage of where you felt you would like to give information to us but it ought to be on a confidential basis, then you are entitled to ask this committee to receive that evidence in that way. The committee would make a decision then as to what they should do. Hopefully, the evidence you give can be in the public arena and that's the way we would like it, but there are times when we can't do that.

You've made a rather lengthy submission to us. Members would have read through that. What I will do at this stage is give you the opportunity if you would like to expand on anything within that submission, or there might be some added information that you want to give us. This is an opportunity for you to make any further statement before we go into a question process, if that is what you would like to do.

Dr EVANS - Yes, I would like to give some salient points.

First, thank you for the opportunity to contribute. Before I present my own credentials, which are important for you to understand, I would like to present some information about the Tasmanian Institute of Agriculture and our role.

We refer to ourselves as TIA. TIA is a joint venture between the Tasmanian government and the University of Tasmania. We are granted public and industry funding from various sectors to conduct research, development, extension, education that is globally relevant, but which also importantly has local benefits. In this regard TIA is committed to supporting the productivity, competitiveness and sustainability of Tasmania's agricultural sectors. TIA's role in this particular context has been to provide independent, scientific advice to the Department of Primary Industries, Water and Environment, based on the best available knowledge at the time. That advice is contained in our submission.

With regard to the terms of reference of this inquiry, our submission relates specifically to point 1 and point 3. We have also been liaising with the Tasmanian government and industry to develop a series of high priority research and extension options.

In reference to my own credentials, I am a senior research fellow in TIA. Today I'm representing our director, Professor Holger Meinke, and colleagues who have assisted in developing our understanding of blueberry rust as it relates to the current context. None of us has conducted research directly on blueberry rust, although TIA has several researchers, including me, who have significant expertise in rust biology and epidemiology. We also have an extensive and global research network.

I am here because I am recognised internationally for my work on blackberry rust. For example, I was called upon when blackberry rust first appeared in Oregon in the USA. That was before there were any official efforts to purposefully release the rust for controlling weedy European blackberry. Sometimes we purposefully release plant pathogens for biological control of weeks. That is where we're trying to promote disease.

Other colleagues in TIA have been associated with national efforts on myrtle rust and we have an industry development officer, Michele Buntain, who has kept abreast of developments in blueberry rust right from the start and also made significant contributions in extension.

Tasmanian Institute of Agriculture acknowledges blueberry rust is a complex problem and has involved some personal hardships for some and angst for many. We welcome your questions noting our expertise is confined to the biological and physical aspects of this rust disease and its impact.

CHAIR - During this inquiry, we have been given a lot of information from different sources to say there is still a huge amount of work to be done and Biosecurity and others are flying by the seat of their pants. I suspect you would say yes, there needs to be a lot more work done in this area to determine exactly what the situation is, how we can properly and should control it and all of those other things. Would you agree?

Dr EVANS - Absolutely. There are a lot of unknowns around the biology and epidemiology. Epidemiology is the study of how disease changes in time and space, and is very important to understand when we are trying to manage a disease.

CHAIR - Do you work closely with Tasmanian Farmers and Graziers Association?

Dr EVANS - No. It depends on our projects. We run many different projects in different areas of agriculture. We are an independent research provider and part of the university. We would collaborate.

Mr FINCH - They might commission you to research something for them?

Dr EVANS - They might, and in some areas we have collaborated with them on particular projects. It just depends.

CHAIR - My question was going to be from that. The TFGA had a huge interest in this matter and has had a number of discussions with me about other members. They had not asked you to do any research for them on blueberry rust?

Dr EVANS - Not that I am aware of, but we are very open to having conversations with anyone who has a problem to solve that requires research. We evaluate each proposal on its merits and whether it satisfies TIA's purpose.

CHAIR - You probably heard me ask a question of the previous witness if relation to the timeliness of information coming out and he stated in his submission that:

> The statement by TIA that the incursion has advanced beyond containment ...

I am not sure what incursion he is talking about, probably the 2014 or the 2016 one.

> ... suggests several things. First, that response of the outbreak by the grower and BT was too slow and inadequate. The grower waited several weeks before notifying BT of the presence of the rust and BT has had a complete season to enact more substantial control measures.(tbc)

Ms RATTRAY - That was the third outbreak.

CHAIR - Yes the third outbreak. Does TIA see there is tardiness in the proper reporting of what could be blueberry rust to the authorities?

Dr EVANS - Our role has been to provide scientific advice with information we had at the time. It is very easy to look at things in hindsight, but I would stick to the advice we were given at the time. My understanding is currently we are in a containment situation. Yes, there are various points where you might say if we had information sooner we might have taken different pathways, but you are dealing with a rust fungus and it is one of the most difficult patho systems to go into an eradication situation. Given the information we had at the time, and you will see the dates when we have given our advice and when we were brought it, so we have based our advice on that.

CHAIR - Would TIA agree then with the proposition I put to the previous witness if a grower suspects they have rust - just a suspicion - they ought to be obligated to report the situation to biosecurity rather than leave it, for weeks in some instances, for it to be proven it is rust to report it?

Dr EVANS - I think if they have the knowledge it is a biosecurity situation. I do not know what knowledge people have to start with. If they were aware then yes, the responsible thing to do would be to report it immediately. I can understand people would want to get independent advice, but I am not in their shoes and cannot answer for their decision-making process.

CHAIR - The problem is it would put many other growers close by at risk. That is the issue we are looking at.

Ms RATTRAY - What role did TIA play in the 2014 outbreak?

Dr EVANS - I was involved from 2016 onwards. Michele Buntain is our industry development officer, so it is her role to keep abreast of all the developments. She has been aware of what is going on all along. Our role has been to respond when the department has required advice or information from us. We have responded as has been requested. That is part of our joint venture agreement with the Tasmanian government.

Ms RATTRAY - I cannot see any reference to the 2014.

Dr EVANS - No. We gave advice in 2016.

Ms RATTRAY - 2016, yes.

Dr EVANS - And also in 2017.

Ms RATTRAY - But nothing in 2014?

Dr EVANS - Nothing officially, but I am sure Michele in her role would have been aware. We are aware of what is going on, but we do not respond officially unless requested.

Ms RATTRAY - We can always ask the department at a later time. Containment was the option chosen in 2016, and yet in 2014 it was eradication. What changed between 2014 and 2016 if you did not actually do any blueberry rust studies or work on blueberry rust between those two years? Why was the decision different or whether it even was from TIA at that time?

Dr EVANS - No. I think you have very different circumstances between the two outbreaks.

Ms RATTRAY - Big and little.

Dr EVANS - I cannot speak for Biosecurity Tasmania, but I understand they follow well-recognised national protocols to assess risk. In the first outbreak they were able to trace forward and trace back. They were specific circumstances. By the time of the second one in 2016, you cannot rule out whether that has originated from 2014 or whether it is something completely new. They are different circumstances.

Ms RATTRAY - There perhaps is someone at TIA that may be able to give us an indication of whether TIA was involved in 2014?

Dr EVANS - We have not been involved in terms of research. We do research development extension. I am happy to take on notice and double-check.

Ms RATTRAY - If you were asked, if TIA was asked for any input into the 2014 decision by Biosecurity to eradicate is what I am interested in. Thank you. If that is taken on notice, secretary.

CHAIR - Thank you for that. That is good.

Mr FINCH - Dr Evans, you said TIA is a collaboration between the government and the university, but money comes from private funders.

Dr EVANS - When I say 'collaboration' - it is a partnership. TIA gets funding from multiple sources. The government has an investment in the institute and this is a history going back to 1996 when the institute was established. The benefit for the state is because we are situated within the university, we can take that investment and multiply it by gaining other sources. We have multiple audiences and investors in our work, and they may want different things, but a huge part of our brief is to do work that brings benefit to Tasmania. It was a way of consolidating the publicly-funded agricultural research and development in the state, rather than having competing areas.

Mr FINCH - In respect of blueberry rust in the state, have you received money to come up with answers or suggestions?

Dr EVANS - No, we haven't done any research yet. We have done some extension in that Michele Buntain, in liaison with me, developed a fact sheet about blueberry rust. We have put together some information the industry can access.

Mr FINCH - Did you get funding for that from the industry?

Dr EVANS - That is part of our investment from the government. We make decisions about how we use our resources and it was felt that was a really important thing to do and that was done early. What we are doing now is looking at the research development, the research that needs to be done, and there will need to be some investment in that for us to go forward.

Mr FINCH - What I am really trying to drill down to is whether you have received any funding from the blueberry industry to embrace the issue?

Dr EVANS - Not that I am aware of.

Mr FINCH - It is interesting reading your report and it is a little bit at odds with what we are hearing. You say here, 'It is assumed that widespread establishment of blueberry rust will eventuate.'. That seems unequivocal, 'it will eventuate'. You go on to say, 'Current thinking among some blueberry growers - that the rust will be eradicated or the situation contained - is likely to inhibit an effective, industry-wide response.'.

What we heard earlier was that it would be better to pitch for the eradication process and achieve the best result you possibly can, rather than to go to a containment issues and accept the fact, as your report has done here, to join in the assumption that the establishment of blueberry rust will eventuate.

Dr EVANS - In the absence of management, it will establish and propagate. If we are going to manage it now - it is a matter of time when it is going to come back again. When we talk about widespread establishment, it does not mean it is severe. There is a difference between severe and establishment. It relates to the number of locations you might find the rust and how many properties has it already been found on now? That has increased over time, hasn't it?

I am not sure what your specific question is.

Mr FINCH - We went down the eradication path first and then we have changed that stance from eradication to containment.

Dr EVANS - Who has changed? We have not changed. TIA's advice has been containment and that was based on our knowledge, which we provided in 2016 and 2017.

Mr FINCH - Biosecurity went down the path of eradication in 2014.

Dr EVANS - That is because they went through their criteria. They have a risk assessment process and there are two columns when they do their risk assessment. Again, I cannot speak for them. If you look at it against all those criteria, that is what they were making their decision on.

It is very challenging with rust because there are two important concepts you need to understand. There is the pathogen and there is disease. They are two very different concepts. Disease is what you see when you look at a plant and you have symptoms and signs. The symptoms are the pustules on the leaves, and the signs are the propagules of the rust. The pathogen is the fungus itself. The pathogen is the spores that are produced and they can become airborne. We cannot see the airborne spores. The other place we cannot see pathogen is when the spore lands on the leaf and it germinates and infects. There is a period where that fungus is growing in the leaf and it is what call the latent phase. At that time you cannot see where that rust is.

Total disease is the visible disease plus the latent disease and any spores that are in the air. Even if you see that visible disease and it releases its spores into the air you don't know where those spores are going and whether there is a latent infection somewhere else. This is the big challenge with the eradication of rust. Visible disease is not the total story and this is part of the assessment that Biosecurity Tasmania would have taken into consideration.

CHAIR - Just following on about the movement of the spores, we've been given some different views. It has been suggested by some that it can be carried for hundreds of kilometres, across Bass Strait. Others have indicated 300 metres or thereabouts is probably the limit. Is TIA able to expand on that?

Dr EVANS - Rusts are known to travel hundreds of kilometres, if not thousands of kilometres, by the air currents. An example of long distance - it is all evidence, it is not 100 per cent certain - is in my experience with blackberry rust. We're almost certain it jumped the Tasman from Australia to New Zealand.

We've used DNA typing to look at the DNA profiles of blackberry rust in Australia versus New Zealand. They are highly related, if not the same clone or the same strain. The other way rust moves is through green corridors. If the spores go into the air they can jump from one set of plants to another. That is how rust moves in the United States, for example, through the cereal belt - cereal rust. Rusts do travel routinely from the southern United States through to the north.

We need to remember that if you get a spore plume in the air, that spore plume - it's like pollen in the air - will dilute with a further distance, but just remember it only takes one spore to get a new infection established. It is all a numbers game, but yes they can absolutely be travelled. The direction in which spores travel is not necessarily the prevailing winds. Sometimes you get these odd air currents, storm cells, and they can go quite high up and travel for long distances. It is quite unpredictable as to what direction these spores can travel.

Mr FINCH - That is why there is that confusion over how far these spores can go. What you are saying there is not general knowledge and not understood by a lot of people. As I say we've had evidence 300 metres is probably the furthest distance.

Dr EVANS - I would question that, but I don't have certainty either. We don't know for this fungus, but we've certainly looked at other rust systems. Those spore trajectories that have been tracked in other systems and they can travel a long way.

Mr FINCH - On that subject of containment and eradication, what we're hearing about is the damage that is done, particularly from the organic growers, to the Tasmanian brand and the clean, green image we're trying to project. If we say we're containing blueberry rust, the message would

suggest it's here and we have that problem. Whereas if we're going down an eradication path the message is more positive, either it's on the way to eradication or it's going to be eradicated. That marketing opportunity is probably a little contingent on the language we use.

Dr EVANS - I think it's also a communication issue. I'm not a communication expert. My understanding is that containment doesn't necessarily mean that you're not going to eradicate it. It is probably going to be highly unlikely. You're trying to contain it, after all. It probably gives the industry some comfort to know that the rust does occur in many other blueberry growing regions. That is something they can point to. That is a communication issue and I'm not well qualified - I'm not a marketing person.

Mr FINCH - We've heard a lot of evidence in the blueberry growing business, particularly organic growers who are concerned that eradication will be the process through which we're going to chart our future.

Dr EVANS - Yes, I can understand why people fear things. It's a lot of uncertainty. People like to know what the consequences of things are going to be. We don't have a crystal ball.

Mr FINCH - We have a plant here and it has blueberry rust on the leaves. What damage does it do to the fruit itself?

Dr EVANS - You can get infection on the fruit. Whether that makes it unmarketable or not, I'm not sure. I would be more concerned about the leaf infection, because that affects the physiology of the plant. It's the leaves that feed the fruit. You need leaves, you need photosynthates because that's where the food for the fruit comes from. A plant can tolerate a certain level of leaves - they call it defoliation - a plant can tolerate a certain amount of that. A little bit of defoliation is not a bad thing; it can open up the canopy and allow the sunlight in. You might actually get better fruit production. It's a balance of fruit production - as I understand it, and I'm not a physiologist - and the amount of leaves. You get a balance between what we call the vegetative growth and the fruit production.

We haven't done the studies to see what the impact of the rust would be on production. There are experiments that you can do. You can do what we call fungicide exclusion experiments, where under a natural situation you spray constantly with fungicides and then compare it with uncontrolled rust. You're not going to do that in Tasmania, but you can do controlled experiments to look at the impact on biomass and just see what impact it really would have.

But then, what actual level it develops in the field is an interaction between the host, the environment and the presence of the pathogen. We need to remember that not all parts of the plant are equally susceptible. This is some research that we need to do. In other plants, we have what's called leaf age-related resistance, so the younger leaves are more susceptible than the older leaves. The degree to which a plant is susceptible at any given time depends on how much leafing out there is, when that leafing out occurs and what the environmental conditions are like at that particular time. We can model all of these things, but we haven't done that yet.

Ms RATTRAY - Has the department, the industry or has anybody, for that matter - the government - asked TIA to do any of research that you could do but hasn't been done, particularly since 2016 while we're in this containment phase?

Dr EVANS - The department has asked us to give some advice on what research could be done. In our submission we've listed a series of -

Ms RATTRAY - But you haven't actually started any of that research yet?

Dr EVANS - No, we haven't. We're not the only research provider either.

Ms RATTRAY - I'm sure they would go to you first though.

Dr EVANS - The industry has consulted with New South Wales, Rosalie Daniel and so on. If I was going to start research on that I would absolutely be collaborating with those who have some experience.

Ms RATTRAY - You wouldn't be reinventing the wheel.

Dr EVANS - Absolutely not. We already do; I've already spoken unofficially with plant pathology colleagues in New Zealand where they have the rust, just for my own understanding. If we're formally granted to do some work, then we go into a very deep understanding. We develop a much deeper understanding than what I would be giving you here.

CHAIR - Just on that point, is New Zealand more advanced than we are here?

Dr EVANS - They have had the problem for a while now.

CHAIR - Longer than us.

Dr EVANS - I cannot remember when, 2004 perhaps. They have the rust. I believe their Institute for Plant and Food Research has done some work. They may have even done some work on breeding.

CHAIR - We can probably go to them for the information. It is about 2004 or thereabouts. That has given them good start on us. Has New Zealand gone down the path of eradication, containment or defoliating? Are you aware of that?

Dr EVANS - I am not sure what their status is. I believe they are treating it as an endemic pathogen now. If you look at New Zealand and Oregon, blueberry rust is part of their landscape.

Ms RATTRAY - Exactly the same in parts of New South Wales.

Dr EVANS - If this was really such the terrible disease that people fear, I would be seeing a lot more scientific publications about blueberry rust. There is perhaps a lot of unnecessary fear around the damage it can potentially do. Notwithstanding, I totally get that the organic growers are going to need options. They spray anyway in many production areas. Some of their sprays are probably protecting the rust, as well as any other biological problem.

Mr WILLIE - Given the state of the industry at the moment and this inquiry and the concern, do you think the government should have given you a funding envelope to facilitate some of this research?

Dr EVANS - In a sense they are already investing in us through the Joint Venture Agreement. We use that investment in various areas, not just blueberries but many other sectors. It would be unfair to say they are not investing in us. What you are talking abut is a targeted investment.

Mr WILLIE - Yes, it is a difficult question for you to answer because you don't want to bite the hand that feeds you.

Dr EVANS - We are independent but we have very good, regular communication. All our staff are doing key activity reports fortnightly to keep the government aware of what our activity is. Those conversations are ongoing now and there has been back and forth. It is not as if we are not having conversations with the department because we are.

Mr WILLIE - On research, in your submission under terms of reference 3, you say:

> Growers highlighted that they did not wish to see research which involved uncontrolled or unmanaged blueberry rust in Tasmania with this research better conducted in areas where the disease was prevalent. [TBC]

Can you clarify that? Does that means growers who have communicated to you they do not want to see a controlled experiment set up? If that what you mean by that statement?

Dr EVANS - At the moment, because we are in containment phase, we cannot let the blueberry rust go rampant if it appears somewhere. It would not be possible to decide to do an experiment in the field, because we are containment phase. For us to test our hypotheses, we often need to have non-treated control plot. That is where you don't manage the disease, especially when you are testing difference sprays,

Ms RATTRAY - Maria Island.

Dr EVANS - They had a vineyard there and it is not there anymore.

To do tests well, we need what we call a good level of disease because we need to know what it would have been like without treatment. There are some things we can do here about learning about the biology. That is, where is the rust over winter? How long is it surviving? There are a lot of questions we can answer by doing research in Tasmania. Otherwise we will have to do that off-shore if we want to get the level of disease - unless things change in coming growing seasons.

Ms RATTRAY - In regard to biosecurity import regulations, do you know of any involvement that TIA had with those changes? There were some changes made in 2011, we understand, where the regulations or requirements were relaxed, and hence 2014 brings in the finding of the first incursion of blueberry rust. We understand it has since been changed back and again the regulations have been heightened somewhat. Do you have any involvement in that as a research organisation?

Dr EVANS - No, we don't. We will give scientific advice if there is to be some policy change where -

Ms RATTRAY - That would have been a policy change.

Dr EVANS - Yes, I understand that, but where it comes to regulation, it is not our brief to be involved in the regulatory aspects of this. There is a national system for all these regulations that Biosecurity Tasmania would operate under. I assume they would adapt some of those to suit the local context here.

Ms RATTRAY - At least we are pleased it has been heightened once again. There is just a question mark over how we got to that stage in 2011. As a committee we will progress that.

CHAIR - What is genome sequencing about? Are you aware of that?

Dr EVANS - Yes.

CHAIR - Could you explain to the committee what that is?

Dr EVANS - I can. It is done at various levels. If you want to identify a species you can identify the rust through microscopy to look at the spore shape, but to be sure there are methods where you can identify an organism down to the species level by comparing a specific part of its DNA sequence to what we call a reference organism - which is like a herbarium specimen, if you will; that's the closest I can think of. Someone deposits a known instance of that particular organism and they will deposit that sequence in a gene bank and say, 'This is the sequence for this particular organism,' so that when you have an unknown - say the Tasmanian incursion - you will then extract the DNA and get the sequence and compare it to the DNA sequence that's in the gene bank that has been deposited by someone who said, 'That is what I think that organism is.' There are taxonomists who work in that area.

CHAIR - I'm out of my depth so I'm just feeling my way. From that process, is it possible - for instance, if we take Costa and the rust in 2016, the issue they had there, if this process was to be used, would it have been possible to have determined where that rust came from?

Dr EVANS - No, that's a different question. It is a good question. There are different DNA markers needed to show if one strain is the same as another. I just talked about the one where we can identify the species level. Underneath that, this pathogen propagates by clones. It is like vegetative propagation so there can be different strains. That is putting it simply.

So we need a different type of DNA marker and it's more the type of DNA marker you would deal with in a forensic case where there was a murder and you needed to match or work out who is the parent of someone else, or these two things are the same genetically, not identical, but very genetically similar. It's hard to get genetic identity, but you can say, 'These are 98 per cent similar.' You would need the markers and as far as I am aware, those DNA markers have not been developed for this particular organism.

CHAIR - The question that was going to follow from that, and it was raised with the committee, was that if that had happened in this instance, they could have determined where the rust probably came from and therefore could then have attacked that source as well. Now, not knowing where it comes from of course allows you to try to control where it is but you still have the source of where it came from.

Dr EVANS - Yes, absolutely. DNA profiling would be very helpful, however there is never 100 per cent certainty with these things, it's just more evidence to help you think it was probable that that happened. Unfortunately a lot of the things we do in science are not black and white.

CHAIR - Can I take it from that then that there's more work that should probably be done in that area, and would it be cost prohibitive?

Dr EVANS - That work is not cost prohibitive now. We can do a lot with DNA very quickly. We have very good tools, but they do need to be developed and that would take time. It is a matter of priority, I think. It is looking at the industry and what knowledge they need immediately and then thinking in the long term. Certainly if we want to go back and understand this whole problem and how it started and what we can learn from it, that type of research is invaluable for the next time someone has this problem again. It can be very good to go back and do all those diagnostics and really try to understand. Having said that, we now probably don't have those strains stored. We haven't collected them and we should have really collected the strains right at the very beginning so that we had that stored and had the source material.

Ms RATTRAY - There would have been plant material taken and tests done, so they would have to be stored somewhere, wouldn't they?

Dr EVANS - I'm not sure. Usually it's destructive sampling. To get a sample of the rust you have to propagate it and clean it up and there's a whole storage process. This fungus is not one that you can culture in an artificial medium; the rust has to grow on a living plant so it's quite challenging. You can collect the spores and store them in a very specific way. If there is a herbarium voucher specimen then you might be able to.

CHAIR - Following through from that, in the future with any outbreak - and you have indicated there probably will be - should we be taking that sample and storing it for future testing? What would you leave this committee with, knowing the terms of reference we are dealing with, as recommendations or areas that we should touch on or include to make this process better, perhaps the reporting better, the control of it better, and what should happen in the future should we have further outbreaks? I appreciate what you have in your submission, but is there anything you could leave us with that would give us good direction moving forward?

Dr EVANS - Yes. You can read for yourself the management options we have listed there and there are some dot points around that. I won't go through all those again but given that our advice has been around containment, I would be focusing on looking at that containment strategy, making sure it is science based and that it is well implemented. You can have a whole lot of recommendations but they need to be well implemented. There is also the whole issue around communication. The industry members need to work closely with the various agencies and vice versa. We all need to work together, and that includes the researchers.

We need to frame that future research and those questions - assuming we are going to establish and do some work on this, wherever that is done - in the context that we are solving a complex problem. It's not helpful when we start using science against each other. The best thing we can do now is to work out what that joint action should be and what will serve the common good, whilst helping those individual businesses achieve their own specific goals. It's really about the way we organise now to work together. That is fundamental so that the researchers really understand the context and we are doing things in a good order of priority because we don't have the resources to answer every question.

CHAIR - Is there any part of the world that you would suggest or recommend we have a look at to take some information from? Should we take a close look at what has happened in New Zealand in relation to their control or whatever it is they are doing in relation to rust?

Ms RATTRAY - Oregon?

CHAIR - I'm not suggesting that we travel anywhere, but I am suggesting that we do the research in the way that we can.

Dr EVANS - We would naturally do that if we start research.

CHAIR - You are confident that you will be doing that, it is just a matter of when you can do it?

Dr EVANS - As long as we have the funding. We depend on attending conferences in being able to meet our collaborators. We try to collaborate with other research groups when we haven't got expertise. I gave you the blackberry rust example where I went to Oregon and worked with them. We've similarly had help that way. Science is very collaborative. We have to because our resources are so limited, or we can't do it. We have to work with others. New Zealand has a very similar climate to Tasmania. Oregon is a little different because it is not an island and it is warmer in the summer. It has a cool climate and they grow similar varieties to us, but they do tend to get a little warmer. Their yearly profile, if you look at it, is not quite the same, but it wouldn't be a bad place. There are a lot of good plant pathologists over there.

CHAIR - I think I can gauge from what you've been talking about, but how would you gauge blueberry rust in this state? Does it have the potential to absolutely destroy the industry unless we take all of the proper protocols, processes and do the right things, or is it something that will always be there and will have an impact but we will get by with it?

Dr EVANS - I think it's the latter. As long as we implement appropriate management, whether that is in a containment phase or otherwise, I don't think we need to have great fear about it. It is manageable. It's not going to wipe out blueberries. I would be very surprised. I look at blackberry rust - that is a weed, of course. Rusts certainly have an impact on plants, but they're not the great blight that is going to wipe out a whole industry.

CHAIR - I've asked that question because that is the feeling that comes through to me at times: that is the way it is seen, that it could in fact ruin an industry. Tasmania has a great potential.

Dr EVANS - There might be isolated patches where, just because they have the perfect microclimate, they get hammered year after year if they didn't do any control. Occasionally, there are little microclimates and we've seen that in other industries. Sometimes they stop growing a crop in a particular patch of land because they have an issue on, whereas other plots of land don't have the same problems. That could happen.

Mr FINCH - Did the TIA receive a brief from DPIPWE in respect of investigation into blueberry rust in Tasmania?

Dr EVANS - Not a specific brief, but we have one-on-one conversations. There is a regular communication between our management and the department. They would have supplied various

documents. Our people have also been to industry meetings. Michele Buntain has been to all of the industry meetings and she has taken notes. Once we were asked for advice then certainly we would ask questions back.

Mr FINCH - I'm just wondering whether there was a formal request from DPIPWE to TIA.

Dr EVANS - There was a formal request to give scientific advice and there were two requests at least. The first one would have been in October 2016 and the second was in July 2017. I was involved in the second one and, following that one, there were various follow-up conversations, by email mostly, about management strategies and they went through to at least October last year.

Mr FINCH - Would it be Lloyd Klumpp you deal with in those discussions?

Dr EVANS - Yes, and Deidre Wilson has asked us a few questions. I have been on the phone to Andrew Bishop, for my own understanding.

Mr FINCH - What you are reading from there, the request from the department, did that set the parameters for the advice they were seeking?

Dr EVANS - I would have to go back and check the email about what was asked for. Yes, there were two questions. I think they wanted questions about eradication and there were questions then about management. They did ask us to give advice on specific scenarios. In that latter one, we divided our response into two parts: one was around the eradication issue, and the second one was around management, whether that be in containment or further down the line.

Mr FINCH - Can we have a copy of those requests?

Dr EVANS - Yes. I will take that on notice.

Mr FINCH - Also, what the parameters were of the request that came through from DPIPWE for TIA to respond to.

Dr EVANS - Yes, I understand.

CHAIR - Our secretary will touch base with you on that by way of email. Thank you for that, good point.

Dr Evans, thank you very much for your time and waiting, we appreciate that very much. It is very important for the committee to look to TIA and these other organisations to get the support and advice we need in moving forward. There has been a lot evidence given to us. A lot of it is differing type of information and evidence. We need to balance that with the information that is coming from groups like yours.

If you think there is anything you would want to further pass on to us that has come out of today's meeting, please feel free to do that because it can only assist us in making and putting forward a better report at the end of the whole process. We would appreciate that.

Dr EVANS - We want the best as well.

CHAIR - Absolutely and we want to improve on things if we can, not here for any other reason. Thank you.

Dr EVANS - Thank you very much.

THE WITNESS WITHDREW.