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THE PARLIAMENTARY STANDING COMMITTEE ON ENVIRONMENT, RESOURCES AND DEVELOPMENT MET IN COMMITTEE ROOM 3, PARLIAMENT HOUSE, TUESDAY 30 OCTOBER 2012.

INQUIRY INTO THE TASMANIAN HEMP INDUSTRY

Mr MIKE TURNER, INTERNATIONAL DIRECTOR, POLY MARKETING PTY LTD T/A ENVORINEX, WAS TELEPHONED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR (Mr Best) - Mike, thank you very much for your appearance today. You are covered by *Hansard*, which means that you can pretty much have free range to discuss any matters that you wish, but if you think there are things of a sensitive nature or could be commercial-in-confidence, then we can make sure that that is heard in camera, so that would not be public.

Mr TURNER - There may be some matters which I need to advise are commercial-in-confidence, especially from the point of view of security classification for the defence avenue. If those matters arise I will annunciate them as such. Secondly, I advise that I have two hearing aids so I am hearing impaired. Let's carry on with it.

CHAIR - Over to you Mike, if you'd like to give us a basic overview on what you're doing with hemp products and what you think the importance of hemp is.

Mr TURNER - I'm employed by a company in George Town called Poly Marketing Pty Ltd, trading as Envorinex, which is a plastics extrusion and injection moulding company. For a number of years we have put towards 10 per cent of our turnover back into research and development. One of the avenues we have been researching and developing has been the utilisation of industrial hemp, primarily due to the strength of its natural fibres and hurd, that impart two various materials; a high strength or high-burst strength which falls within the gambit of new plastic products that we're looking to develop using firstly, recycled plastics and, secondly, virgin plastics. In looking at that, we are looking to be innovative in utilising the hemp resource as a medium to give additional benefits to the end product material so as to enhance, one, the commercial sustainability of hemp as a raw material additive and, two, to give an innovation to the end products which would create a market demand, both nationally and internationally, to resolve problems that we've identified in the field, especially in the building, construction and, potentially, the defence fields.

CHAIR - That's very interesting. How do you go sourcing products or materials to manufacture?

Mr TURNER - Do you mean generally speaking or hemp especially?

CHAIR - Hemp.

PUBLIC

Mr TURNER - The hemp project, at this stage, is still in a research and development stage so we have had a degree of difficulty in obtaining adequate resources for the research program.

Mr ROCKLIFF - Do you mean funding, Mike?

Mr TURNER - Sorry?

Mr ROCKLIFF - Are you having trouble obtaining funding to progress the R&D?

Mr TURNER - Yes, funding is one issue but also material adequately processed, as in the hurd from the hemp plant being finely ground. We find that a difficulty; we have to get it from interstate because there are no opportunities for fine grinding the hemp hurd in Tasmania.

Mr ROCKLIFF - Does that come in a powder form?

Mr TURNER - It depends upon the level of fineness that you process it down to. The Chinese have done considerable work with industrial hemp. They are using the hemp for defence mediums by sintering the industrial hemp and using the process from the sintering as part of the material formulations in with plastic material.

Mr ROCKLIFF - What do you mean by sintering? Is that the same as corticating?

Mr TURNER - It's a bit like turning coal into coke; you heat it and you char it rather than burn it. Charring it, or giving it a carbonised format, changes the molecular structure and gives you what is all the hemp material, which when you combine that with plastic formulated material, as a powder, gives added benefits to the end product, be that injection moulded or extruded.

Mr ROCKLIFF - Thanks, Mike. With respect to sourcing the product, and following on from Brenton's question, if there was a local supplier would there be any advantage in obtaining that raw product from a Tasmania grower, as opposed to importing it from China where it may be - as with a number of things - landed in Tasmania cheaper than a Tasmanian producer could produce and supply it to you. Is there any advantage, looking further down the track, if your research and development proves successful, in sourcing from a Tasmania supplier and what would the reasons be for that?

Mr TURNER - We haven't imported any from China. The material we have trialled has come from the mainland, but because of the cost of Bass Strait, even with freight equalisation on the sea freight factor, the cost of importation is considerably higher. Therefore it makes a lot of sense if we can identify and innovate material capabilities, utilising a Tasmanian resource; it is going to give us a better commercial competitive advantage than sourcing it from the mainland. We see that it behoves us to, if possible, work within the industry realm here in Tasmania to generate the resource and therefore a sustainable supply avenue from Tasmania, standing alone.

Mr STURGES - In your submission you attended some detail regarding the commercial impediments. I was wondering for the benefit of *Hansard*, as a result of the evidence being taken today, if you could expand on that or address the matters that you have

PUBLIC

raised in your submission? Also following on from the line of questioning from Jeremy, whilst I appreciate that you are using the product and not the primary producer of the product, would you care to make any comment in relation to the regulatory impediments that you would see in this state?

Mr TURNER - Difficult to answer that. There are a number of issues that need to be addressed. From the point of view of initiating an industry in this arena, I believe you need to identify sustainable demand for end products using that resource. There is no book or textbook background that you can go to and say, okay, hemp can be used for all these commercial avenues, which is going to create a volume demand, so there has to be a degree of market research in order to identify potential end products, which would warrant volume growing of the industrial hemp. I believe there are such products from what we have identified within the areas of our expertise, but I suggest there would be immeasurable value in some form of conjunctive research to identify end products that could use the hemp by-products as a form of material input into the formulation. Once you have identified those end products, develop the capability to manufacture them in a sustainable vein, so you can attach and provide a sustained supply avenue to resolve the issues that the products are required for.

Mr BOOTH - What we are dealing with here is not so much, at this stage, the size of the market, but looking at the removal of impediments to industry and changing the regulatory regime. Would you say that what you are talking about would become a natural consequence, if it was able to be freely grown like any other crop, that the market would provide to the level of demand and that you, as a user, would create a demand, and other potential users would create demand, which cannot be created at the moment because it is illegal or difficult to grow the crop?

Mr TURNER - Looking at it from the legal point of view, if the crop was allowed to be grown without any legal impediment, I do not believe there would be a national or international market demand adequate to uptake the total crop capable of being grown. There would be a surge of growers interested in becoming part of the program, but consequently there would be very quickly a surplus of supply, which would be detrimental to the commercial benefit of the growers.

From the point of view of the legal implications, the government ought to be looking at industrial hemp as being a viable capability within Tasmania. Once that has been obtained there would be a push from the growers to generate commercial demand for the end product, which is grown here, so I agree with you in that aspect. But it is not all that simple from the point of view of commercialisation of the end product. From the seeds and the flax-type end product arenas, there are known commercial areas of demand and it is easy to predict what the volume of demand would be. It is when you start to move into the other areas or other properties available to what would have been the waste stream of the industrial hemp, which is the stalks and that type of thing, that you need to be adequately innovative and prepared to outlay the cash to generate the demand for what would be waste-stream product. Does that answer your question?

Mr BOOTH - Yes, from your view as a user of the product, do you want to see the regulatory regime changed to enable people to grow it and I think the other point you are making is that there is a cautionary tale there that because you allow it to be grown doesn't necessarily mean that there is going to be a massive increase in demand

PUBLIC

tomorrow. That is something that may or may not grow and it will grow by the normal economic forces.

Mr TURNER - Normal economic forces won't apply until you have created something which can use it. We do understand you can make frisbees out of it and candles, things of that type, but generally there is not a sustainable volume commercial demand for those type of trinket products. There has to be real commercial demand to give it viability, even once it has been legislated to be able to be grown here.

CHAIR - One of the things that has been discussed in the committee by at least one witness, has been the concept of a growers' group, an industry group, similar to the poppy industry, but maybe different again. They would look at how you could strengthen between farmers in growing produce, but also looking at products. Have you any views about that?

Mr TURNER - There are a number of avenues that could be addressed within that realm. You could form something like a cooperative whereby you have growers interacting with potential manufacturers of products using the resource. Therefore, they have an interest and a fiscal return from the development of demand. I am sure there would be cooperative research centres on the mainland that would have an interest in being involved in materials research, utilising what would otherwise be waste stream products from industrial hemp plant because of the strength value and the capabilities. There are prescribed innovative avenues, that could be brought into play, once it becomes legal to grow the material.

CHAIR - Do you think if we had a decorticator located somewhere in Tasmania, that would help the industry because we could refine the product into usable material?

Mr TURNER - Rather than say refine it into usable material, I would prefer to address that as being value-adding. That would be applauded by many - to have that performed in Tasmania. Then we would become the masters of our own destiny if it's all done within the state, rather than having to transport just material which is grown and harvested and the only value adding here is harvesting, putting it into a container and sending it to the mainland to be on-processed. I think it makes a lot of sense to do the value adding here. It gives you the capability of taking the product in various directions. Further to that, once you provide that type of facility within the state, you will attract users of that end product from the value adding facility who will possibly locate in Tasmania and create further value to the process of growing.

Ms PETRUSMA - Which state do you currently source your product from?

Mr TURNER - A combination out of northern Victoria and New South Wales.

Ms PETRUSMA - Would you say those states are the best in Australia for value-adding?

Mr TURNER - No, the only place that's been doing any value-adding has principally been in the Hunter region in New South Wales where there's been a mill in operation.

Ms PETRUSMA - Do you know the name of the mill, please?

PUBLIC

Mr TURNER - Not off the top of my head. Hemp Australia has an interest in that.

Ms PETRUSMA - In regard to the Australian Defence Force, have they shown a big interest in your product? Without going into commercial-in-confidence.

Mr TURNER - Yes, they have an 'over the shoulder' interest at this stage, to see what transpires in conjunction with such avenues as the defence, science and technology organisation, DSTO.

CHAIR - Do you know what the cost of the decorticator would be? Do you know how much it would cost to set up a facility like that?

Mr TURNER - No, because I haven't had any experience within those areas. Other people have developed them. I understand that there have been innovations done to processing in Australia, principally by a guy in Victoria. I have no knowledge of that.

CHAIR - Mike, is there anything else that you would like to say? Is there any other information that you would like to let us be aware of?

Mr TURNER - Only that from the tentative 'bucket' science that we have adapted there have proven to be potential avenues, especially in the building and construction industry, in conjunction with plastics, for this type of end product, and within the defence and security industries there appears to be a large market, which upon development would bring considerable employment avenues to Tasmania.

CHAIR - Thank you. We appreciate the information you provided and you have given committee members another angle, and it is great to hear a Tasmanian business looking at some innovation. The evidence you provided is on *Hansard*, so you are protected that way, but if you make any public statements about things that you have said we cannot offer you that. Not that we think that you would do that, and you are welcome to make public statements, but if so you will not be protected as you have been this morning with *Hansard*. We thank you very much and hopefully you will find the recommendations and findings of this committee a worthwhile cause.

Mr TURNER - I commend the project to the committee.

THE WITNESS WITHDREW.

PUBLIC

DISCUSSION BY TELECONFERENCE WITH Mr ANDREW KAVASILAS,
VITAHEMP PTY LTD.

CHAIR - Good morning, Andrew. We thank you for giving up your time today to provide evidence for our committee. You would have received guidelines and information.

Mr KAVASILAS - Yes.

CHAIR - We are looking at making some findings and recommendations about moving the hemp industry forward in Tasmania. Before you begin giving your evidence today, I understand you are interstate, so we would not be asking you to make the declaration, but as this is a parliamentary committee, you are protected by parliamentary privilege. If you think there is something of a sensitive nature, which might affect a third party or could be commercial-in-confidence, if you indicate to myself that that would be the case, then we would make sure that that is not publicly processed in any way and that would be held in camera for the committee. This is a public committee so everything you say - unless we go into camera - is there for the public to see and to listen in to the comments and what you may have to say. I need to make you aware of that.

Mr KAVASILAS - Thanks for the opportunity. This is a step forward for the hemp industry, let alone Tasmania, but obviously you can see the implications.

CHAIR - We might hand over to you to talk about what you are doing and your interest and Vitahemp Pty Ltd.

Mr KAVASILAS - I have been involved in industrial hemp trials, or commercially growing, since 1999 and I have delved into the fibre aspect of hemp, but the infrastructure, and it is well documented, is quite expensive and we do not have the machinery and processing facilities here. Hemp seed food is where the real money is. That is demonstrated with what's happening in Canada; we're a few years behind but the evidence is there. What we are doing at Vitahemp is developing as an export company in light of the fact that hemp seed foods aren't allowed to be eaten in Australia. The market overseas is very big. Australia is the only country where you're not allowed to eat it. In terms of marketing, distribution and market acceptance, overseas is where the market is. We'd like it to take off here; it would be a lot simpler and, in terms of securing investment, and certainly capital expenditure, that would trip it here.

This Tasmanian inquiry that's going on hits the nail on the head by identifying bureaucratic obstacles to the success of the hemp industry in general. As evidenced in my submission, I identified bureaucratic obstacles, ones that keep coming up, addressed them and added accurate, scrutinised reports and information behind them.

CHAIR - You talked about the machinery of processing. That's a topic I and other members are interested in it. What would it cost to set up some sort of processing plant, say a cooperative plant, or something that the industry could work towards? What would it cost to set up and how viable do you think it would be?

Mr KAVASILAS - Are you talking about for fibre or for food?

PUBLIC

CHAIR - I was thinking more about fibre.

Mr KAVASILAS - For fibre you are looking at about \$40 million minimum. That is for a decortication plant that would handle commercial quantities; you'd need guarantee of about 100 000 hectares to be grown to supply that plant and then you'd probably need machinery that can handle this tall, very strong fibred plant.

CHAIR - So, it's a significant investment.

Mr KAVASILAS - Absolutely.

CHAIR - I don't know whether the numbers have been worked out but you have to have a market and -

Mr KAVASILAS - In Australia, we grow lots of wool and lots of cotton but most of it is exported. We're having trouble even maintaining a carpet mill which deals with crude fibre. I can't see anybody or any major investment being put into Australia to grow hemp fibres, so you're probably talking to the wrong person. I have looked into it and they are conservative figures, it would probably cost a lot more and you'd probably want a lot more area under cultivation.

CHAIR - What would it need to firm up an industry plan?

Mr KAVASILAS - Around fibre?

CHAIR - Yes.

Mr KAVASILAS - The impetus would be hemp seed for human consumption. We are so far out of the loop that it may augment it and give it some impetus but when you have a look at the Canadian experience, over 90 per cent of their fibre is ploughed back into the ground.

CHAIR - Your main interest is with the human consumption and the benefits for basically -

Mr KAVASILAS - Yes, the commercial side of it and the health benefits. In my situation, we are growing with soybean farmers. We've developed subtropical varieties of low THC hemp that integrate straight into the infrastructure, already being used by soybean farmers. It rotates very well. Infrastructure wise, the cost of a tractor would set you up in terms of an oil press or even a de-hoeing plant.

CHAIR - Along those lines, what do you think, if we get approval and we've had evidence to suggest that that may be on the horizon?

Mr KAVASILAS - Is that for hemp seed food?

CHAIR - Yes, that is the information that we had.

Mr KAVASILAS - That is heartening.

PUBLIC

CHAIR - I am not saying it is happening, but that is the information we had from a witness who was heavily involved with the submission to the federal government. What do you think that food industry would be worth?

Mr KAVASILAS - We can only look at what has been going on overseas. The domestic market would probably adapt well. We are talking about a niche market of those types of customers who are going to health food shops or the health food aisle in a supermarket. We are not looking at a big thing, but domestically we would probably grow considerably. At Vitahemp we are planting six or seven hectares this year. If approval was given we would probably go to 100 hectares, that is the kind of confidence we would have and the kind of investment we would put into it because we would be developing a new market. Part of FSANZ's - Food Standards Australia New Zealand - approval processes in their assessment was an education campaign to the public, so we would ride on the back of that.

Foreign companies have spearheaded the marketing and pioneered the marketing in distribution of hemp seed food in Australia already, so that is the angle we are looking at. In terms of growth, domestically whatever growth would be significant. I think we would make very good inroads into the American market and the European market. Contrary to what was given as evidence by Mrs Cheryle Hislop, plant industry analysis with DPI, who said that more and more US states are growing hemp. That is not true. There are no US states growing hemp, nor is it on the horizon that any would gain approval, so we would be looking there. Into Europe and agronomically, whether from Tasmania or Australia, internationally our farming credentials and product credentials stand up as well as Canadian and probably any other place. We would see marketing and distribution quite easy to do into the US market.

Ms PETRUSMA - What are you doing with your six to seven hectares at the moment when you do grow it?

Mr KAVASILAS - We would probably see when we get there. We would look at a number of things and we would go into export. It is only six or seven hectares, so that kind of investment is easy to hold, we have established storage and handling, so we would probably look at overseas for our distribution. We know we can get it de-hulled in Victoria, and a tip off Vitahemp in a foreign market as a food product. In Tasmania there are lots of cottage industries, whether it is cosmetics or timber finishes, that would use some amount of Australian grown hemp seed.

Ms PETRUSMA - I'm interested in what you had to say in random roadside saliva testing. Do you want to give us a summary of what you have had to say there, please?

Mr KAVASILAS - I have been involved quite a while. I was tipped off a number of years ago by a corporate body called the Rosita project that had started - based in the EU - that was trying to get police forces all over the world to use these random roadside saliva testing. I didn't trust them from the start. I have done a fair bit of research in cannabis and cannabinoids and my real interest was that I knew that cannabinoids would probably stay in the body longer than synthetic powders and pills, then I determined that the use of saliva testing could trigger another change in drug use in Australia, especially amongst youngsters when confronted with, 'Should I smoke a joint on a Friday night which might stay in my body for weeks or should I just have some powders or pills which I know will

PUBLIC

be gone and not detectable within 24 hours?'. That's when my interest started. As the years have progressed and the reports have been done, no other country is doing roadside random saliva testing. The reports by the Rosita project, and consequently the Druid project, found that all the saliva testing devices were unreliable and couldn't be recommended, yet, Australia still took it on and they are still the only country doing them. I have to look at it from there. In my research I found they were never developed in the same method that urine or blood testing was done under clinical trials and accurate testing. With saliva testing, the company that makes the reagent and delivery system produced a product before they had it tested or it was unlikely to be tested in any meaningful way.

This now being brought up as an issue to stop this industry getting up, I find hypocritical. I wish people would have a look at it closer. I haven't gone to the media with these findings. They are public findings; I was told where to find them. The deterrent aspect of them might be good but I wouldn't want it to see it hold back an entire industry.

Ms PETRUSMA - Is Inspector Bauman the person that you see as the expert in Australia on the -

Mr KAVASILAS - Yes, I've been speaking to Martin for a long time, even before they were introduced into Victoria, which was the first place in the world that introduced random roadside saliva testing.

Ms PETRUSMA - You say on page one of your submission that he since discounted the report, so has he now changed his mind on random roadside testing?

Mr KAVASILAS - No, he discounted the initial report from Rosita. He said he'd read the DRUID report. He knew the DRUID project was set up with additional funds supplied by the EU to have a look at the effectiveness of saliva testing. That supplementary report was done which found the same thing and even had follow up links to clinical chemistry and a brief by six different experts on oral fluid testing who all say the same thing - we need more research, they're not reliable; we've a long way to go.

Mr BOOTH - Andrew, in terms of what we're looking at here, removing impediments to a commercial hemp industry in Tasmania, what sort of specific relevance that would have to this committee?.

Mr KAVASILAS - I don't know whether it was in your debates or in the terms of reference, identifying the bureaucratic obstacles to the hemp industry. At the moment there is no bureaucratic obstacles for a fibre industry. There are none in New South Wales and there are probably none in Tasmania, or Victoria or Queensland, but the industries aren't getting up. What Canada has shown is that hemp seed for human consumption domestically gives impetus for broader industries.

Mr BOOTH - I appreciate that but you might have misunderstood. I meant in terms of saliva testing.

Mr KAVASILAS - Saliva testing has been raised by police. There has been some collusion between several police jurisdictions and that's the line they're toeing, that hemp seed food will further compound the saliva tests or people will be caught and tested and show

PUBLIC

positive and will say they've had some hempseed oil or something similar and it will tie up the court system or something like that, they are all talking about.

Mr BOOTH - Okay, thank you; I haven't got your report in front of me.

Ms PETRUSMA - Andrew, the Tasmania Police did make a submission to FSANZ - Food Standards Australia New Zealand - on exactly what you said. Are you aware of any other police jurisdictions in Australia that are saying the same thing?

Mr KAVASILAS - Yes. In Mr Arnold's evidence, he says that South Australia, Queensland, Western Australia and New South Wales also have raised these concerns. Mr Arnold says Tasmania Police have not stated that they are unsupportive of the industry, but they sent in an unsupportive submission to FSANZ.

CHAIR - I wanted to ask, Andrew, in regards to another use with feedstock, does it have a capability for feedstock for salmon farms?

Mr KAVASILAS - Absolutely. It is used as a fish bait for carp and so forth overseas. It is a very versatile seed. That is the interesting aspects of it, you are feeding plant-based omegas three, six and nine, to a fish that you are ultimately going to take omegas out of. It could be quite good. You would probably feed them the waste. You probably would feed them the oil cake; after you have extracted oil from it, there is still up to 10 per cent oil and good mixtures of other proteins and minerals.

CHAIR - That could be a potentially huge market?

Mr KAVASILAS - Absolutely. Overseas is chicken, eggs and so forth. The chickens are fed with that waste from the hemp seed oil extraction and those omegas are finding their way into the eggs and you have healthy eggs.

CHAIR - Those sorts of markets - are they prohibited currently?

Mr KAVASILAS - Only here in Australia.

CHAIR - As feedstock for animals?

Mr KAVASILAS - So I believe. You are not going to grow hemp seed just to feed it to an animal. The potential high value end of it is for human consumption. At the moment we are all working on legislation here in New South Wales, which says you can grow wheat for the chaff.

CHAIR - I see what you mean. I am not sure if I have any other questions, do any other committee members have any?

Mr BOOTH - I have one with regard to figures on the value of biodiesel - as you say 10 per cent oil. What would you get on an average crop in terms of litres per hectare of biodiesel, potentially? Do you have a figure on that?

Mr KAVASILAS - Oil content of hemp seed is generally between 30 per cent and 35 per cent. Hopefully, you would be getting a tonne and a half to two tonnes, maybe more in

PUBLIC

the future, you work it out from there. There are farms in Canada and in Europe who are growing a bit of extra seed and converting it into biodiesel and they are running their machines on the biodiesel that they made. I do not know the figure exactly. My main focus is the economics and the bureaucratic obstacles holding back the hemp seed food, which in turn is holding back the broader hemp industries.

CHAIR - I am not sure if any other committee members have any other questions, but we thank you for your information. Andrew, is there any other further information that you would like to impart on the committee members?

Mr KAVASILAS - I looked up the UN charter and article 28 specifically says the convention does not apply to the cultivation of hemp for seed or fibre. Australia is the only country where you can grow hemp and not eat it. The US is similar; you can eat it but you can't grow it. I find the bureaucratic obstacles, whether it is police or whoever, have damaged the industry and the growth of the industry to an extent where a lot of players have fallen out. Those who are remaining in it all have other jobs and work in other places. If it was purely farmer led we would not be here we would still be sitting in the doldrums. This committee should do something. Hemp seed foods are here. People are ordering them off the web. The importation of the hemp seed hull, or even whole, is not an offence and you can bring it in. Hemp seed oil we can bring in. A lot of the imported stuff is being repackaged and sold for human consumption, albeit labelled 'not for human consumption.' There is a distinct difference between intoxication and nutrition, and once we get a grip on that and that industrial hemp is nothing really to be worried about, we might be able to progress it a bit further.

In the meantime, and as you have probably seen from a number of your witnesses, I will still plug on and we will wait for the results and findings of this committee and we will wait for the outcome of the FSANZ report. I suppose that is where a finding of this committee would be that your Health minister, your rep on the ministerial council, FOFRA, the forum of food, who will ultimately decide and vote on hemp seed food, that your Health Minister takes it up with the other members of that committee and make sure that they are adequately informed, so that when the FSANZ decision is delivered to them for approval that they approve it and not seek a review.

CHAIR - I was looking for the directive, but I can overview it without giving you the exact words. The parliament, when it decided to set up this committee of inquiry, has made representation in support, as I understand. There was a motion in the Tasmanian Parliament that:

The state's position be advocated nationally, through the Food Standards Australia and New Zealand, that the sale of hemp as a food should be allowed in the upcoming year. The minister commits that following a national resolution has been achieved to move at the earliest opportunity to amend the Poisons Act 1971.

Separate additional to sections 1 and 2 above the terms of reference be set for this committee to look at opportunities and solutions encouraged by the industrial hemp industry.

I think we are singing the same tune in regards to what we make about representation.

PUBLIC

Mr KAVASILAS - When FOFRA meet it is a vote and so she is one in nine so it would be good for her to get up. In the New South Wales case our whole of government report does not support the proposal to allow hemp seed for food in Australia, so their work is going to be cut out. I have scrutinised all of the submissions made to FSANZ and the only opposition is police and basically using the saliva testing excuse, and a couple of other excuses that have been tried, but they have gone by the wayside now, in terms of sending the wrong message about the safety of cannabis, which is a series of arguments that are verbatim what the DEA used to try to block industrial hemp seed products coming down from Canada. It was eventually overturned and the DEA had to retreat from that position, and that is what has really given the Canadian industry hundreds of millions of dollars since 2004.

Mr BOOTH - It is probably about as rational as abandoning the growing of corn on the basis that people could make moonshine out of it, isn't it?

Mr KAVASILAS - It is something like that with the development of hemp and the varieties around the world now. At Vitahemp we grow varieties that, even under gas chromatography during the growing of the heads, we are having no detectable trace of delta-9, so if there is none in the plant there is going to be definitely none on the seed or seed product and food. We have to be working towards that and some rational discussion about it and for police to take a better outlook on it and accept these facts for what they are, I suppose.

Mr BOOTH - Do you have a position in terms of the minimum THC level? Some jurisdictions are 0.1 per cent, others are 0.3 per cent. Do you think any of those are realistic proposition?

Mr KAVASILAS - They are high, but you do not want to drop them. They are very low in terms of any kind of social use of cannabis or marijuana - they are very low and it is not going to attract any kind of recreational smoker. There is creep that happens. We are still very early in this kind of stage of development of an industry. There is no magic stockpile of certified low THC seed in Australia. We all have to do multiplication crops and breed up and things can happen. The varieties I grow, I would not care if the levels were dropped, but for most people things can happen, a bit of stress and a bit of lack of water or a bit of lack in some chemical might elevate them to 0.8 per cent or 0.9 per cent, but you would not want a dangling sword hanging over you. Anyone serious in the hemp industry is striving for the lowest you can get without interfering with the plant's natural mechanism for plant resistance, pest resistance and that kind of thing.

Mr BOOTH - Short of legalising the growth of both industrial hemp and cannabis, what do you regard as a level that prevents it being able to be used for recreational use?

Mr KAVASILAS - One per cent is fine. That gives probably a 3 per cent and 4 per cent margin of a recreational user. If I was growing hemp and mine went over about 0.5 per cent I probably wouldn't breed with it, I would still use the seed, but if it was under 0.5 per cent it is fine. Under 0.3 per cent is even better. I think our highest is about 1.3 per cent.

PUBLIC

Mr BOOTH - From the point of view of the committee, pending our reports, one of the things we may report on is a THC level, so I am interested there. You are saying 1 per cent would be something that would work for the industry and prevent people being able to use it as a drug?

Mr KAVASILAS - Absolutely. You might put side things in there like 0.3 per cent is your level for food, 0.5 per cent for fibre and anything between 0.5 per cent and 1 per cent could still be used for food and fibre, but you would not breed off it. As a grower you take that into consideration because if you found that your delta-9 content was creeping you are going to have to do some serious breeding, or get rid of that and find another source of seed.

Mr BOOTH - If we are going to remove restrictions or artificial impediments to the industrial hemp industry, then we do not want inadvertently impose an impediment to the growth of it by making it too difficult to grow on some spurious ground.

Mr KAVASILAS - No, 1 per cent is fine.

Mr BOOTH - Right.

Mr KAVASILAS - Tested cannabis goes a lot higher than that, but 1 per cent is fine and it is still very low. That is internationally accepted and there is no reason for us to be setting anything lower or higher.

Mr BOOTH - Okay.

Mr KAVASILAS - You might want to create a scientific permit. When we have a look at hemp and delta-9, which is a mutation. It is purely viewed as a mutation and it can quite easily be bred out of the plant, so if a specific permit established for a research house or university, they may want to have a special permit that allows between 1 per cent and 3 per cent under very strict conditions, but if there was a variety that could be produced that made a bigger, better seed with a thinner shell with better quality oil. Then, for example, we needed to simply remove the delta-9 or lower its content, it would be good to know that researchers in the field can do that as well. It would still keep it well below any recreational use. I must reassure you of that.

CHAIR - Thank you, Andrew. As I said, your comments today are on *Hansard* so you have that parliamentary privilege. If you wish to make public statements away from the committee, we can't afford you that protection. I'm not saying that you can't make any comments that you wish to make. We live in a free society but as far as your protection of evidence is concerned, that ceases at the end of this discussion here this morning. Thank you, very much appreciated.

Mr KAVASILAS - Thanks and good luck with it all.

DISCUSSION CONCLUDED.

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Ms LISA YEATES WAS TELEPHONED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Lisa, you would have received the information regarding the process of giving evidence and the aspects about the committee. As the hearing is a proceeding of parliament, it means you have parliamentary privilege for any information that you'd like to provide the committee. We thank you very much for your appearance today. I need to caution you in a sense that for everything you provide today, you have protection but if you want to speak about anything that you think is very confidential by nature or might affect a third party or be commercial-in-confidence, if you indicate to me as Chair, we will make sure that information is held in camera but all other information will be made public. It is a public hearing and there are others here so what you have to say will be heard publicly. As long as you are comfortable with that, we'd be very interested to hear what you might want to provide for the committee. Thank you, Lisa.

Ms YEATES - As I stated in my email, you have spoken to all those that are highly informed on this issue. I wanted to add my little bit in that I've been passionate about the need to have this industry happening in Australia for over 20 years. Most of my experience has been in northern New South Wales in lobbying. My views are very general and it's more an overview. I want to reiterate some of the stuff that you've probably already heard.

Something concerning me is, having been to field trials and things like that, it seems Tasmania is very much focusing on trials at the seed and oil production stages. One of the arguments for this is that it is cheaper to undertake treatment, or processing, on the mainland. I understand that Patsy Harmsen has a seed oil processor - a small one - and that brings me to my major point. I truly believe that it would be great for Tasmania to start a boutique hemp fibre industry. To start small. I know that many people would like to start a big industry. I know there is a lot of support for the seed industry, but I am concerned that there does not seem to be much focus on growing hemp for fibre and potentially ethanol. Those things would be phenomenal, and would make, as I say, a boutique industry to start with. I know there are people that would like to be able to grow hemp for fibre in small quantities - as mulch for their orchard because of its proven benefits for nutrition, and the fact that it doesn't weather as quickly as other mulches.

Also, other people would like to grow enough so that they could build their own hempcrete buildings. I believe that hempcrete could be a wonderful boutique industry for Tasmania. I am personally involved in a project with several other people here in Deloraine. We are investigating, and we would like to build a model retirement village out of hempcrete designed to demonstrate the state of the art in sustainability so that costs for older people are reduced. I believe that hempcrete is a solution for many issues in affordable housing, which is very important here.

I also know that in the stable industry and the pet industry, there is a lot of interest in using hemp fibre for bedding instead of straw. We are not talking about growing multi-hectares yet - just starting small and letting it develop, and focussing on supplying Tasmanian needs first. There is a lot of interest from people wanting to build using hemp fibre.

PUBLIC

In the long term we could potentially export hemp ply building sheets, instead of gyprock. As we know hemp is incredibly diverse. It has a lot of versatility.

We were told there is a lot of pressure from America to stop us having a hemp industry here. I don't understand how, but the message I got was that it is somehow related to the poppy industry. It concerns me that we could have external pressures - international pressures - on something that is such a potentially viable and very excellent crop for not only Tasmania, but for all of Australia. I still believe that for health reasons, and for all sorts of reasons, the hemp seed oil industry is equally important, but I felt that more attention was being given to that and I wanted to put in a bid for the hemp fibre industry.

Mr ROCKLIFF - What about the medicinal marijuana you have mentioned in your submission?

Ms YEATES - I know that is a hot potato and most of the people lobbying for industrial hemp want to step aside from that issue. I don't think I need to be - what do you call it, in-camera - I think this is public information. There are so many health benefits derived from medicinal marijuana that they have already identified several cannabinoids that specifically are of benefit to people who suffer from tremors, or from Parkinson's disease. For people who are suffering from AIDS or who have had chemotherapy for cancer and have lost their appetite, there are specific cannabinoids in THC that make you hungry. I know of people that have saved their lives because, unfortunately, it is illegal in Australia but they have been using it and it does make a difference. I have seen it with my own eyes.

There are many other benefits, and I believe that medicinal marijuana should be allowed. I know it is naïve and simple but the easiest way would be to remove the drug classification on hemp or marijuana and just call it a herb, which is what it really is. I know that the industrial hemp lobby want to separate themselves as far as possible from THC. I believe it is equally important, but I did not think this was the avenue to push it. If we could, it would be wonderful to have it growing down here in Tasmania.

Ms PETRUSMA - I am interested where you said that for only \$500 000 you could buy a machine that will separate the fibre from the herb. The fully commercial version is available for around \$3 million. Others have told us that it could be up to \$40 million. Do you want to expand a bit more.

Ms YEATES - Sadly, I wish I could. I got that information from the man who has the business up in Malani when he was at the field study.

Ms PETRUSMA - Just on hempcrete, what do you need at Deloraine to get this sort of business up and running?

Ms YEATES - I was in northern New South Wales in July, and they have now formed an Australian hemp industry group - a commercial hemp group, or association. Clara returned from that meeting and reported they had basically agreed to approach it on a regional level - not shipping materials to a central processing point. When I was listening to the inquiry several of you referred to a machine, and I am sorry, it is something like -

PUBLIC

Mr STURGES - The Chair has got his lips around it.

CHAIR - It is a decorticator. I can help you out on that one.

Ms YEATES - Thank you very much.

Mr STURGES - He has finally mastered it today, Lisa.

Ms YEATES - I am not sure that is specifically the machine I had been told about. I could flip back through my notes but it could take some time. The people who have the business running in Malani came down to the field study here in February this year and spoke to us. He gave me that. Later on, Andrew Kavasilas told me they had been working with a machine that is much smaller and they have just about got through all of the glitches. A machine that will work, like a converted ordinary harvester that will strip and separate the herb from the fibre, would be far more affordable. As I say, keep it very small in the beginning and facilitate this development. Andrew Kavasilas was the one who told me about that.

If there was something that simple. You were asking about what we need in Deloraine. Number one, we need to be able to grow the fibre legally. Mr Harvey Gee has been very interested in this. He is a local and runs an historic farm between Westbury and Deloraine. He has always expressed a lot of interest. He would love to be able to grow hempcrete in the rotation for weed suppression. When Patsy and Fritz first came to Deloraine about 1991, he was at a meeting we had here, and he was then vice-president of the Farmers Association and he was quite angry that he didn't know about this potential for growing industrial hemp, because he saw it as a fantastic inclusion in his options for rotation for his cropping. I am sure he would be interested in growing some and I know that there would be people very interested in growing an acre or so to be able to build their own homes.

Ms PETRUSMA - To make the hempcrete you need the corticator and -

Ms YEATES - We need the fibre which is separated from the hurd, which is used for something else, and we basically need anything from a concrete mixer to something bigger - I have seen it done with just mixing lime in with the fibre and water, but I know that Clara has developed other waterproofing agents and fire retardants that are added. The wonderful thing about hempcrete is that it continues to absorb carbon, it is light, it is fire resistant, it has very high insulation qualities and I'm sure you have been given all this information by others. It could be a very simple thing. I am talking about this because I want to retire into one of these little places. First we have to achieve that it is legal to grow it. Once it is possible to grow it, I believe it would be very easy to develop from that point.

Mr STURGES - I am very interested about the concept of hempcrete, the affordability of hempcrete as opposed to the more commercially available building product now. Where could we get some of that modelling? Has Clara done the modelling around that?

Ms YEATES - Absolutely, she is building with it now and I just received a website blog that I could forward to Scott about the doctor at Table Cape with pictures of what he has

PUBLIC

built. A massive house. He imported his fibre perhaps from New Zealand, I do not know, but it must have cost him a lot of money to bring it into the country.

Mr STURGES - I would be interested in that because I have a bit of interest background in the building industry, so it would be good to get a comparison with the affordability of hempcrete as opposed to the more commercially available product.

Ms YEATES - I am surprised that that didn't come to you from Clara.

Mr STURGES - It may have. I apologise, we have been swamped with information.

Ms YEATES - I bet you have.

Mr STURGES - It may be something that is in the body of information. I am getting a nod from the secretary, so we will revisit that.

Ms YEATES - You could compare it to building pise or mud brick walls. The method that Clara uses is formwork and pouring the mixture into it until it sets. I have also seen experiments done where mixing it and putting it into moulds like you would with mud bricks.

Mr STURGES - Okay, thank you.

Ms YEATES - It is a very simple hands-on process. It is two women who have built the house that Clara has been building in northern New South Wales and she has been working very closely with the Aboriginal community there. They are very keen as this is a way for them to build their own places. I know that Aunty Phyllis Pitchford is interested in it for building affordable housing for the Aboriginal community in Tasmania.

CHAIR - I think we have received a submission if it is a long program that you refer to. Are there any other questions any other members have? Is there any further information, Lisa, that you want to provide for the committee?

Ms YEATES - Maybe another angle for Tasmania to take on board and look at is also growing to create enough seed to make this a bigger industry because that is what the other issue is - having to import the seeds. To develop seed for colder climates down here, it wouldn't hurt to have some people specialising in growing to harvest the seed, not necessarily for the fibre alone. If you're harvesting the fibre, you normally whip off the seed heads before you harvest it.

CHAIR - Lisa, thank you very much for the information you've provided to the committee. As mentioned, the evidence you've provided is protected by parliamentary privilege. If you wish to make statements outside the committee, you don't have that parliamentary privilege. I'm not saying that you can't make any statements that you wish but we cannot provide protection. We very much appreciate your time today -

Ms YEATES - Thank you. I know I wasn't the most highly informed but I've had my chance. If you don't have a chance with what you think then you can't complain if it doesn't come out the way you want it.

PUBLIC

CHAIR - That's right - democracy reigns.

Ms YEATES - Thank you very much and I hope that we succeed in getting something off the ground.

CHAIR - We'll try.

Ms YEATES - I know; it's the federal government that's the problem. I didn't even talk about the political stuff.

Mr STURGES - Let's hope we can get something in the ground as well.

Mr BOOTH - The point you need to remember is that the committee is tasked to look at trying to establish an industry by removal of impediments so the parliament has unanimously supported the move to establish this committee which is a good indication of the way parliament feels.

Ms YEATES - That's right. I think that all the states would be very interested in pushing the federal government. I understand the real block is the treaty with America.

Mr BOOTH - Thank you for that. We are looking at how we can establish an industry, not how we can't, so let's hope that all the information will help us get that pathway clear.

Ms YEATES - Excellent. Thanks Kim.

THE WITNESS WITHDREW

Ms LISA TEALE WAS RECALLED AND EXAMINED.

CHAIR - Lisa, you've provided information before so we don't need to go through the formalities. Thank you very much. You've provided a second submission and we'd like to hear about that.

Ms TEALE - Thanks for again giving me the opportunity to provide further information. I will give a quick run down because there's quite a bit of information in that submission again.

Brandt and I have been involved in this industry in Tasmania since 1998. It's a fledgling industry that we've often had to re-substantiate due to misconceptions of departments and individuals that were wanting to advance the drug industry. That's nothing further from the truth. We don't condone the use of drugs but we do fight for a legitimate primary industry that has many benefits for the state.

There have been a lot of submissions to this inquiry which we see as re-inventing the wheel which carries the risk of wasting time and money. Our involvement has always been hands on, working with farmers and many avenues that have been explored by us and our parent company. We feel that we can provide an informed and practical view of hemp development. Some of the evidence that has concerned us has been submitted through either ignorance, some form of self interest and in some, deliberate mistruth, but we stress that the evidence has been of substantial merit.

In the written statement I go through some of the areas that we have achieved and trials and productions we have done. Some of the things that have come out today was hemp for the feedlot industry and these are things that started in 1999. We did a concept paper for developing and expanding the industry in the year 2000 and that included a tourism venture.

During that writing of that concept paper we explored a lot of avenues and given a lot of support. One of those was the meal industry for the feedlot industry, which we worked with DPIWE at the time and TIAR, Tasmanian Institute of Agricultural Research. We had talks with Skretting and it is all listed there. There was wool and merino, as in Australian merino wool and hemp fibre blend, which was imported, being made in New South Wales, which is no longer in production. We have spoken to Sanitarium and Greens at the time because that was the initial ANSA - Australian National Sportsfishing Association - application, so we did have support from them

Hemp filtered beer, which was marketed by us through the state. It was made by Coopers in South Australia and filters were made by CUNO, for which the pulp was imported because we had no industry in Australia, but it was a filtering system that was very advantageous, so further discussions were made with them, and the list goes on.

These were cards we made with local products from our Tasmanian hemp and made locally by Plane Tree Studio. They are a handmade paper, but something that we did produce. Now we are involved with the oil and meal market coming from here.

There are lots of issues from our first presentation. You did ask me to follow up on the THC testing at the labs. I have been able to source information, so that is there in the format that they use and how they work that. The controls are available from Sigma pharmaceuticals.

CHAIR - It now goes to Western Australia.

Ms TEALE - It now goes to Western Australia, yes. Andrew Kavasilas was saying hello to me before, because I was talking to him yesterday.

I would like to point out the levels of THC in the state laws and whilst we have been having had the 0.35 per cent in this state, I have given comparisons there of Queensland and New South Wales where their ruling is 1 per cent, which is what Andrew was referring to and the 0.5 per cent. We have only had one instance where our percentage was over 0.35 per cent, but that also happened to be at the time where we found that New Town lab's technology was flawed. While it hasn't been problematic, what Andrew has said is that because we are trialling different cultivars, there is the potential where it could raise over above 0.35 per cent, so setting more of a national limit being the 1 per cent with the 0.5 per cent is more advantageous for the industry as a whole.

Mr ROCKLIFF - You would be recommending that we follow the lead of Queensland, New South Wales and push for a national consistency?

Ms TEALE - Yes, I would. Queensland in particular states that they define cannabis in their licensing as less than 3 per cent THC which is considered industrial hemp and anything over 3 per cent is considered to be marijuana, then if they issue a licence for that then it is as a research A and B, so they actually specify different levels.

Mr BOOTH - Is that 3 per cent or 0.3 per cent?

Ms TEALE - It is 3 per cent. Given that, it gives us, as interstate, a bit more flexibility. It also means that, if we are bringing seed in from another state, they could have a slightly higher potential for our growing processes and, therefore, it could still run us into those same problems that every time you grow a seed, environmental practice can change that THC limit.

We held our first licence in 1999. At that time we had four to five farmers assisted on our licence. In progressive years we went up to eight licences or eight farmers on that one licence. We felt that was a more streamlined approach than the situation we are in at the moment where we have one contractor; a contractor contracting ten farmers, for example. Each one of those farmers has to get a licence so, rather than have an umbrella licence that says these ten farmers can produce and be licensed to grow, we also have all of the handling that goes with that. From a point of streamlining and making it easy for the industry, having an umbrella licence that then goes through, would be much more advantageous.

Mr ROCKLIFF - Is that how it used to be?

Ms TEALE - Part of it was but you still had processes that had to be licensed individually. Whilst we held the licence for our farmers, there was still the cleaners, for example, and

the storers of the seed who had to be licensed separately. In an ideal world we'd like to see an umbrella licence that said we are having this grower and this grower, and we will have it cleaned at places that we deem are going to do the best job for us and then their allowance to do that is covered by our licence.

I have gone onto some more information about the United Nations single convention. Ms Sharp happened to state in hers that licensing enables the convention to be respected but it states that it's necessary to prevent the use of illicit traffic in the leaves of the cannabis plant. Fibre and seed was still omitted from that. It was exclusive - we could use it for fibre and seed or for other cultural purposes and the leaves, according to the convention, were the problem. If you consider poppies, the poppy seeds come from a restricted plant yet there is no restriction on the dispersal of poppy seeds. Poppy seeds can provide a positive drug test so there's not a lot of equity there.

I am not an expert on law but, as certain states like ACT and South Australia have amended their act to introduce a cannabis expiation notice scheme for the drug side of things, Tasmania could also amend the act to enable hemp as a low THC cannabis seed to conceive it to be less restrictive, if the food laws and things like that didn't come off.

There is a lot more in there about the fact that we cannot use fibre from a seed crop, particularly if we wanted to utilise that into the hemp mulch market which we have done throughout Tasmania because of the seed being a likely contamination into the mulch when doing it, and the seed, being a restricted substance, means that if it went out to the public, creates problems. It limits what we can do from what we would call probably a waste product from the seed crop, being able to be utilised and not be able to provide farmers with another avenue to improve their gross margins.

CHAIR - Stubble of the seed crop. You can't do that now?

Ms TEALE - No. You have to have a dedicated seed fibre crop.

CHAIR - Have you got to destroy that?

Ms TEALE - Yes, basically it gets ploughed up and goes back into the ground.

CHAIR - That is a waste.

Ms TEALE - It is also the fact that seed is deemed as a poison or a restricted substance, that we have been trying to access different cleaning and post harvesting facilities because of the areas that we might want to grow in having different cleaners and we found because it is listed as a poison or a restricted substance, that cleaners are hesitant to take that on board.

CHAIR - What are cleaners? What do you mean?

Ms TEALE - The seed has to go through a cleaning process and it gets graded.

CHAIR - You are saying they are reluctant to do this because of the current legislation.

Ms TEALE - That, as well as the fact of contamination. When any seed cleaner is doing it they might have 97, 98, 99 per cent purity which means there is a small percentage of contamination that may occur simply in the cleaning down of their machines and the processing of things that go through. They are not a little machine. They are quite big with all these different screens and while due care is taken, the possibility of contamination can occur.

If it happens with a classed poison or classed restricted substance, being the seed, it can reflect badly on them so we have found some instances where they have been so worried about it that they haven't wanted to take it on board.

Ms PETRUSMA - Lisa, do poppy seeds ever have to go through this cleaning process?

Ms TEALE - It is all handled by the one manufacturing company.

Ms PETRUSMA - Do you have a company in Tasmania who will take on your cleaning.

Ms TEALE - We have a company which is according to the licensing in the north of the state who will do our drying and cleaning at the present time. That business is expanding in a lot of other grain areas and we are a very small crop at the present time and because of those restrictions it is becoming more and more financially expensive to continue. We have to look at other avenues. Also, that is in the north of the state. We need something in the south of the state to expand here. We have found that difficult and we will need to access other dryers and cleaners.

CHAIR - Are you saying that is an industry development thing? Is that why you are giving us that information?

Ms TEALE - Yes, for harvest, because we are growing enough seed now for next year's propagation so we are creating a seed bank. If we can't get that as the bottom line of what comes off our crop, dried and cleaned ready for the next, then that is the whole market for the next year's crops going in and the rotation of it.

CHAIR - What sort of capital is required to get something like this?

Ms TEALE - Talking to one of the prospective cleaners, there are machines that start for around about \$50 000 odd, plus in most instances we are looking at different drying techniques. We are doing a lot of different things and have done over the years as in different cleaning, different drying, to get the best end product we can.

CHAIR - These are all important industry components?

Ms TEALE - Yes. To address some of the issues that have come out of today's inquiry, Jacquie, the mill in the Hunter Valley is our parent company which is Ecofibre Industries.

Ms PETRUSMA - I was going to ask you that.

Ms TEALE - Which are in the Hunter Valley. They have created what they call a pilot mill and have done another recent upgrade. They have been creating a Hunter cooperative in the way that they have a number of farmers there, who have been having to stockpile

product because unless you have the product it is not feasible for the mill to be in place. It is about having the product to make it viable to have that mill. They are working and their philosophy is to create regional production areas, so if they have their farmers group, they have their production, and then they would meet the fibre needs in that area and eventually that pilot will be self-sufficient and they would move onto another area. So you could see these mill processes going around Australia to support whatever industries or product they are creating. It is cutting out a lot of the transport issues. It also means that if an industry failed in one area of Australia, it could still be bolstered by another area. Their hope is to be able to achieve that, which means that you have a lot of industries going around Australia and supporting each other, but also having everyone involved in that process.

Ms PETRUSMA - Do you know what their start-up costs are for that?

Ms TEALE - No.

Ms PETRUSMA - Is it the \$40 million?

Ms TEALE - No. To go on record, no. I wouldn't like to say a figure. But no, not \$40 million.

Hempcrete is another product they have been doing. Clara got her hemp from the Hunter Valley. Everyone is supplying product to each other and doing lots of things there on the mainland.

Mr STURGES - And it is commercially competitive, the hempcrete?

Ms TEALE - It is still a niche market.

Mr STURGES - The more you produce, the more competitive it becomes?

Ms TEALE - Everything becomes economy of scale.

Mr STURGES - I understand.

Ms TEALE - It is the same with everything you look at. While it might be a nice feeling to say, yes, let us go and grow a hectare to put that into our garden mulch, it is not economically feasible. It is not the sort of plant that you can cut down with your hands, because if you are growing for fibre it is all quite nice to say that we can have these little markets, but in the scheme of things it comes down to economies of scale.

Mr BOOTH - Can I ask about crop security? You have vast experience in not only growing the crops, but also being involved with others. One of the impediments with this industry that people raise is that people will steal the crops or cause a nightmare for security. Do you have any comments on that, and is that something that has been occurring? Do you lose a lot of crops by people confusing it with hallucinogenic marijuana?

Ms TEALE - No, we haven't lost a lot of crops. I think we have had two incursions since 1999 in any of the crops we have been involved with. Funnily enough one of those

incursions happened after the US DEA inspected one of our crops. Who knows from that? In all those instances they are more of a nuisance and very little was taken at the time and it has not been problematic at all.

Mr BOOTH - From an industry perspective have you any broader comment on that argument? You have heard them, I am sure?

Ms TEALE - I do not believe that is an argument. If somebody was wanting to bulk up their drug crop with leaves of whatever it is from the hemp that they take, they are not going to get any repeat customers because it is not going to do anything for them, so it might be a one-off thing, but is still not to a point that it is an issue.

Mr BOOTH - What about confusion. The other argument is that the police will never know when they see a marijuana plant whether it is industrial hemp or whether it is a non-industrial hemp?

Ms TEALE - The way around that is that a licensing procedure is still probably warranted, so I do not see that as a problem. I just think that the restriction should probably be less.

Mr BOOTH - Have you got a template there in terms of the regulatory regime that your industry would see as being adequate to provide the safeguards that are needed but not so ridiculous that it prevents industry occurring?

Mr STURGES - I think that's a good question, Lisa, if you could help us with that.

Ms TEALE - Ensuring that licensing is much more streamlined without the added restrictions of the drug component being involved.

Mr BOOTH - Lisa, it would be quite appropriate for the committee to also ask you if you had some thoughts, given your long history in the industry and expertise, to have a further submission if you wanted to in writing that actually gave us some sort of template and structure for a regulatory regime.

Ms TEALE - I think that would be the easiest thing for me to do because there are a lot of things that actually come into so many different areas. To sit here verbally now, off the top of my head, and do it, I don't think I would be succinct.

Mr STURGES - Lisa, I support what Mr Booth said. It's certainly something that, through the inquiry, has interested me - the need to develop a modernised and more contemporary regulatory regime around this. Given your experience, if we could get a submission from you it would be very helpful.

Ms TEALE - Okay.

Mr BOOTH - That would be great, thank you. Obviously it would be your position, but because of your engagement with industry, would you be able to try to workshop that a bit to make sure it's seen to cover all bases?

Ms TEALE - Certainly. Brandt and I and Hemp Australia are involved with IHAT, the Industrial Hemp Association of Tasmania, and most states of Australia are now trying to

get their own industrial hemp industry going and then in turn create a national body, which is also in the works at the moment. With that and all the contacts - Phil Reader is our president and he is also with the TFGA - I can definitely workshop that to give a whole-of-industry structure that way.

Mr STURGES - That would be excellent.

Ms TEALE - There is an issue which keeps raising its head with regard to the decortication. While it's on public record, on the internet and things like that, I don't know that I really want to say it without being in camera but I would like to provide something.

Ms PETRUSMA - We've had other people say to us that the plants look different between industrial hemp and marijuana plants but I think that's not correct.

Ms TEALE - You've got 2 000 varieties of hemp and all the cultivars will have little differences in characteristics. I personally haven't been through any drug hemp crops, but they look very much alike. The only changes are in the way that we grow them. If we're growing them as a seed or if you're growing them for a fibre, they will look quite different.

Evidence taken in camera.

CHAIR - In relation decorticator, how far away do you think it might be before something like that type of machinery would be possible for the processing like that.

Ms TEALE - The decorticator machine itself, I do not know when it might be feasible. Something that has come out and there are other Australia fibre components. There are other Australian hemp fibre people who do not support the particular decortication machine as itself. It also runs into problems as in we usually are harvesting around about the same time and if it is one machine to go into one area or several different areas that it is not necessarily going to be feasible, even if it worked to the potential that it could.

Something that also has to be taken into account is that we do not have a textile industry in Australia, so while the separation of that fibre may create -

CHAIR - If it could be done in the way it is supposed to be done.

Ms TEALE - Yes - cottonised fibres, there are very few mills here, if there is any mill, to use that fibre. That then creates a problem of we have to transport that overseas to have it milled to do whatever. Where is the economy of scale in that when they are already producing it overseas? They can get it to their mills and to do that. It is a value situation that in the directions that we have been taking is that the seed and the grain side of things is the much viable industry as a kickstart.

CHAIR - Can you talk about that then because I was reading a bit of that in your submission. Industry kick start program. What your thoughts are there.

Ms TEALE - I would have to admit that this is Brandt's part of it. A lot of it is that, but in the point of view of the kick starting the industry, as I mentioned before we need a grass-

root level where we can be sure that our drying and cleaning machines are available to use for hemp., whether it be in the north or the south of the state.

If the food industry came off then obviously we are in the position to expand our growing, to expand different industries and we certainly have contacts and have done some trials in different ways in this state to meet those markets.

Mr BOOTH - You would also want to the Poisons Act changed in any event wouldn't you so that could use seed cleaning machinery and harvesting machinery and so forth.

Ms TEALE - That would go hand in hand with the food being approved. If food isn't approved there is still a growing market and that is evidenced from in the four years that I have been pressing Tasmanian hemp seeds. So much so that even though it is not approved for food my market is increasing. It is funny to say but I have not even sought new customers, they have been seeking me which is wonderful. The reason I have not sought them is I cannot provide the product at the moment. That comes back down to the point of the scare tactics that are there in some of the cleaning processing and if we cannot get that off the ground and also the licensing procedures, it is licensing also that has all of those impacts on growing an industry.

CHAIR - That is important information or evidence that you are providing this committee. What you are saying is there is this huge opportunity, but these things are stopping it from happening.

Ms TEALE - There is also the education process. We were in retail for a number of years and we should have been an educational facility, because the amount of time we spent educating the public or the departments, is paramount to changing the face of the industry.

Mr STURGES - I found this inquiry very educational.

Ms PETRUSMA - Lisa, do you have anything more on FSANZ?

Ms TEALE - No. I think it was December. No, we don't get any inside information. The last I heard was still December - which is still outside the guidelines.

Mr BOOTH - Lisa, to get it on the record with regard the decortication what you are saying is with or without decortication, the industry has a strong future and you do not need that to establish an industry. So problems or otherwise with decortication are not an issue as far as you are concerned with establishing a strong industrial hemp industry?

Ms TEALE - We can start the industry, but if we want the whole of industry we have waste product as in the stubble from the seed crop which we should be able to utilise, whether it is a low form grade of fibre which can then go into garden bedding. When you are looking at expanding, and because we are an island state, we have a lot of industries that could benefit from the fibre separation and it may be the starter mills that are involved with that. As in the Hunter Valley, that could open up a lot of avenues, having a starter mill. That mill is now going to be providing horse bedding for the equine industry. They are going to Equitana, which is in November in Melbourne, and while it is still a lower value added it is still an industry, with horse bedding, pet bedding, garden mulch

and all those sorts of things, that can be made viable through a mill, eventually to get to more superior quality fibres coming off that.

As that progresses it means that we could be looking at paper products. Not handmade paper products, because that is a niche cottage industry, but broad paper product.

Mr BOOTH - Is there much interest from the commercial side of the industry with regard to using this as a feedstock for a paper mill, for example, for pulping?

Ms TEALE - In years gone by. When we are looking at all of these processes, inquiries and trialling, it is about can you provide this quantity of product? No, we can't yet. Come back and see us when you do have that volume. It is a chicken-and-egg scenario constantly. Can you provide that quantity? No, we can't yet. Are you interested? We might be interested if you can get that quantity of product.

Mr STURGES - Would it be fair to say that the regulations, as they exist at the moment, are a significant impediment to growing the industry?

Ms TEALE - Particularly from the oil and seeds point, yes, definitely.

Mr BOOTH - Do you have a reliable estimate that you can give us - and if you haven't don't worry - but if you have I would be interested to know what the dry weight capacity would be of an average industrial hemp crop grown on reasonable land, something that you would regard as a commercially successful crop? What would the dry fibre weight be per hectare?

Ms TEALE - Are you talking about a fibre crop or a seed crop?

Mr BOOTH - A fibre crop.

Ms TEALE - I couldn't tell you because there are so many different varieties in regard to the fibre crop. What you've to take into account is if the machinery in Tasmania is able to harvest those crops to start with. Experience has told us that we don't always have that machinery in the area where we have grown them. You spend most of the time unwrapping the fibre off the harvesting equipment. I have been involved in taking that green stuff out of there.

Some of the fibre - I wouldn't say it was dry weight - but six to 10 tonnes per hectare, depending on the cultivar, depending on when it is grown, depending on conditions and those sorts of things. Fibre has not been my forte.

Mr BOOTH - Would you be able to grow six to 10 tonnes per hectare? You're saying it's not necessarily the dry weight so we'd need to get better figures on that if the committee wanted it but is that on a year in, year out, basis that you can grow on the same spot, the same crop, or do you have a rotation issue with the fibre crop?

Ms TEALE - In Tasmania, we found mainly that we would be doing one crop per year. In New South Wales, they have been doing two crops, basically a continual rollover of that. In most areas, you don't usually recommend more than three years on the one paddock. Hemp is used more as a rotational crop to improve soil quality for the next grain or seed

that goes in it. I don't have all the scientific and technical information, but it's not something I think we should grow year in, year out, on the same paddock.

CHAIR - We have your industry kickstart program and we're interested in further information coming back to us about some of the regulations.

Mr STURGES - Yes, very interested.

CHAIR - This is a very helpful submission you've given us today. I'm not saying the other one wasn't but this is about some of the things that we were wanting to know more about. Is there anything else that you need to tell us today? Are there any more questions from anyone?

Ms TEALE - I'll go back to another thing.

CHAIR - Yes.

Ms TEALE - While the mention from Lisa, the previous person, was stating about having oil presses and so on in this state, we are looking at a more commercial quantity when we do press which is why we have had to send it off to Victoria with a person who is established in utilisation of hemp and also doing a grain seed pressing. I think it's important to recognise that, while we do have some smaller machinery here, there are certain requirements in the pressing to create the premium oil that we need to do, which is what we're getting now.

My comment is that it's not that we don't want to use Tasmanian oil pressers or other Tasmanian processors, but at the present time they haven't been presented to us in a format that we find is commercially required.

CHAIR - To get the quality of the oil?

Ms TEALE - We also use food-grade nitrogen when flushing it and there are also filtering systems and all those sorts of things to get the highest quality of oil. It gives us a better shelf life which gives us a better -

CHAIR - That fits into what you've already said to us about where you think there could be supports to develop the industry. Thanks very much and give our regards to Brandt.

Ms TEALE - Thank you.

THE WITNESSES WITHDREW