

TRANSCRIPT

LEGISLATIVE COUNCIL ECONOMY AND INFRASTRUCTURE COMMITTEE

Inquiry into the Industrial Hemp Industry in Victoria

Melbourne – Thursday 7 September 2023

MEMBERS

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Renee Heath

Sarah Mansfield

Rachel Payne

WITNESS (*via videoconference*)

Tim Schmidt, Australian Hemp Council.

The CHAIR: I declare open the Legislative Council Economy and Infrastructure Committee's public Inquiry into the Industrial Hemp Industry in Victoria. Please ensure that mobile phones have been switched to silent and that background noise is minimised.

I would like to begin this hearing by respectfully acknowledging the Aboriginal peoples, the traditional custodians of the various lands we are gathered on today, and pay my respects to their ancestors, elders and families. I particularly welcome any elders or community members who are here today to impart their knowledge of this issue to the committee or who are watching the broadcast of these proceedings, and I also welcome any other members of the public watching via the live broadcast.

Mr Schmidt, before we begin I will just get committee members to introduce themselves to you. Because you are on Zoom, I will just get them to say their name and the area that they represent and put their hands up so you know who is who, starting with Dr Heath.

Renee HEATH: I am Renee Heath, and I am a Member for Eastern Victoria Region.

Bev McARTHUR: Bev McArthur, Western Victoria Region.

Sarah MANSFIELD: Sarah Mansfield, Western Victoria Region.

The CHAIR: Georgie Purcell, Northern Victoria Region.

John BERGER: John Berger, Member for Southern Metro.

Rachel PAYNE: Rachel Payne, Member for South-Eastern Metropolitan Region.

The CHAIR: Welcome, Mr Schmidt, and thank you for appearing today. All evidence taken is protected by parliamentary privilege as provided by the *Constitution Act 1975* and further subject to the provisions of the Legislative Council standing orders, therefore the information you provide during the hearing is protected by law. You are protected against any action for what you say during this hearing, but if you go elsewhere and repeat the same things, those comments may not be protected by this privilege. Any deliberately false evidence or misleading of the committee may be considered a contempt of Parliament.

All evidence is being recorded. You will be provided with a proof version of the transcript following the hearing. Transcripts will ultimately be made public and posted on the committee's website. For the Hansard record, can you please state your name and the organisation you are appearing on behalf of.

Tim SCHMIDT: Timothy Schmidt, President of the Australian Hemp Council.

The CHAIR: Beautiful, thank you. We now welcome any opening comments or presentations that you have, but I ask that they kept to a maximum of 10 minutes to ensure we have plenty of time for questions.

Tim SCHMIDT: Yes, sure. Thank you very much. I welcome this inquiry and commend the Victorian Parliament for having the foresight to explore the opportunities – and there are some significant opportunities throughout Australia for the hemp industry.

First of all, I would like to just explain that the Australian Hemp Council is a seven-member organisation. Each of the members represents an association in each state and the Northern Territory. We cover well over 300 stakeholders across the hemp industry in Australia, and we are working on developing some serious initiatives. Just to explain a little further, we are setting up a series of groups based on food, fibre, fodder, extracts and carbon, because the hemp industry is quite complex and we are dividing it into groups and organising specialists for each of those groups. One of the areas of greatest potential is in the fibre and carbon sectors, and this can relate quite importantly with the Victorian agricultural economy and also regional development and manufacturing. Further to that, we are looking at developing a national cooperative, and there will be more information coming out on that in the future, but it is a very, very significant development that

could tie in with many Victorian government initiatives, including housing, carbon sequestration and regional development.

With regard to Victoria, just to give you a sort of an idea of what has been some of the context, over the years the development of the hemp industry or hemp production in Victoria has been somewhat limited, and I can explain that. In terms of an example, there is a manufacturing process which was only commissioned a couple of months ago that is processing hemp fibre into among other things CHEP pallets. This business is at the forefront of the development of the hemp industry, making substantial connections to market from production. Now, the raw material for that processor comes from New South Wales. Another point is that since 2017 when food has been able to be sold legally, hemp food, most of the hemp that is processed in Victoria comes from Tasmania. Now, this is no accident but simply a reflection of some of the, perhaps, shortcomings in support of the hemp industry in Victoria, and it is depriving the growers and so on in Victoria of opportunities to supply these manufacturing and processing businesses.

I know that there was a task force set up quite some time ago, and there was a bit of a flurry of activity, and then it just died in the water and was not developed any further. We were involved in a review of the legislation probably about a year ago, and that was an important development where the minimum THC levels of industrial hemp were raised from I think 0.35 to 1 per cent, which was Victoria eventually coming in line with the rest of the country. But we did put a submission in, and our advice was pretty much ignored, and there were extra restrictions on licensing and other things with the legislation. So I think that this inquiry is a real opportunity to correct some of those anomalies for Victoria and to help put Victoria in a really good position to be able to foster a strong hemp industry.

As an example, only just recently New South Wales has changed the legislation to be able to include resins in extracts from fibre – well, it does not have to be fibre – from hemp production, and that means that there are other revenue streams for New South Wales growers to be able to draw revenue from the crop and create efficiencies and profitability, all that sort of thing. So I think that that is an example of where Victoria can take the industry. I know there are a couple of organisations in Victoria that are very, very keen to set up some significant in particular fibre businesses, but it is really important that there is the right environment for hemp.

Finally, a key factor for the development of the Australian hemp industry is support in research and regulatory change. The Australian Hemp Council is looking to get a reinterpretation of the single convention so that there can be a further freeing up and access to revenue streams from the plant. And I have to make it really clear: this is with the exception of the high-THC cannabis. The AHC has a very neutral stance on that, and we are not addressing that at all. We are concerned about hemp and the development of the hemp industry. Thank you.

The CHAIR: Thank you very much, Mr Schmidt. We will begin with questions down Ms Payne's end with 5 minutes each, and then if there is more time we will go round again.

Rachel PAYNE: Thank you, Tim, and thank you for your submission and for appearing today. As you know, this is something that is quite dear to my heart, so I am really excited to be talking with you on this topic. You mentioned the review of the legislation, and there was a recommendation made for the 1 per cent THC or below to be acceptable, in line with the other states. If you could expand on having this legislation in line with the other states, how important is this for export opportunities and Australian businesses?

Tim SCHMIDT: Yes, look, that is a little complex, but probably the most important thing is that it creates consistency across Australia, because it was really important that Victoria came in line with the rest of the country. It does help with consistency in export. Many other countries across the globe have a limit of 0.3 or 0.35, but a key advantage for Australia is that if you have got 1 per cent as your minimum, then when you are producing a CBD crop you can do that quite easily with the slightly higher THC that amplifies the limit of CBD that you can have. Right at the moment, the federal regulations are stymieing the CBD industry. We actually import product, because regulations – you can walk into a service station in the UK or North America and buy yourself some CBD gummies. Here it is treated like a dangerous narcotic, which it is not – it is no more dangerous than echinacea. As a result of those regulations, the CBD industry in Australia has been stifled. But in answer to your question, having the 1 per cent minimum is an advantage for Australian exporters, because it can create serious efficiencies in production.

Rachel PAYNE: Great. Thank you. Another thing I want to talk about – you mentioned hemp production has been limited and that Victoria is having to import probably fibre and hurd for production. Is that due to the limitation on the regulations for growers?

Tim SCHMIDT: I do not know the detail, but I understand that there is an issue with the transfer of material across borders and across states with certain regulations, which really needs to be freed up for the sake of the fibre industry. I mean, originally with most of the states, the fibre component or regulations were designed to be able to make it easy for fibre and food production, but there is the hang back of the restriction on the leaf material, and it complicates the issue fairly significantly. There is room to move there, to create some easement of the regulations to make it a lot easier and a lot more efficient for the industry to be able to transport product around and process it.

Rachel PAYNE: Just on processing, I think it is quite interesting to consider other industries where there could be overlap. I think in the submission you refer to cotton gins and things like that for production. Can you talk a little bit more about that and how versatile hemp can – if it is a versatile product, can it be produced through other manufacturing needs?

Tim SCHMIDT: Yes, look, I wish we had all day. This is relating to the national co-op initiative that we are looking at, and just to sort of paint a bit of a picture there – it does relate to the cotton industry – we are looking at having a 90-day discovery period and then opening it up to membership right across Australia. We have got some people that really know what they are doing in setting up the cooperative structure, and it would be a consultative process with the industry, of course. This cooperative structure will build security of supply chain, both production processing and markets. One of the key things that it will provide is capital. The expectation is that there will be a \$400 million finance facility available to industry and to businesses that are members of the cooperative to be able to invest in infrastructure development.

That brings me onto the cotton industry. There are about 47 gins right across Australia. We have seen the Carroll Cotton gin in Gunnedah. I visited there a few months ago and was really surprised at how far they have advanced. Stuart Gordon is the man that knows all about that as well and is a leading scientist in the area. There is the opportunity to exploit the infrastructure development that is already in place, and a key thing about it is that there are the grower networks, logistics and infrastructure that just need a few more million dollars thrown into them to complete the gap in where they have got to. They have got the old cotton gin infrastructure where they can process the product, separating the hurd and the fibre. The fibre just needs a bit more tweaking, but they need the markets to be developed. So there is huge potential for industry in that sector where the co-op structure can help secure those markets.

As an example, I was recently at a New Zealand conference in Christchurch, and I had a look at New Zealand Natural Fibres. They are doing an amazing job there. They have a wool processing facility there, and they have got right next to it, right down the other side of the building, a decortication facility, which they have purchased and modified. They are actually cottonising hemp fibre, and they are developing brands with wool-hemp composite materials. They are probably almost the most advanced in the world down that track. It is just another example of where the opportunities lie for the industry.

Rachel PAYNE: Excellent. Thanks, Tim.

The CHAIR: Thanks, Ms Payne. Mr Berger.

John BERGER: Thanks, Tim, and thanks for your appearance and presentation this morning. I just want to explore a bit more about the national co-op and what the membership of that might look like and whether you think it would be made up of associations or whether it would go down a bit further to some of the manufacturers or the farmers, if you like. Would they be a part of it? We have seen some examples of co-ops in the dairy industry where they have fallen apart and the companies have been bought out by national overseas conglomerates. Would that form part of your strategy going forward? I just want to unpack a bit more of that if we could.

Tim SCHMIDT: Yes. Look, we are at the very, very early stages. We are going to create a model that we are happy with, but in the initial stages we will be looking to address all those factors that you just mentioned. One of the key things is member protection. We want to set it up so that it cannot be taken over by a conglomerate or a big corporate or whatever. It is going to be comprehensive for the industry. It will be a food

and fibre organisation. For example, Hepburn Ag would be a member. The purpose of it is to secure that supply chain and provide capital to the industry, which is so badly needed to bring all the bits – all the bits are there, they have just got to be brought together. As I said, in a 90-day discovery period we will be developing the structure of this organisation. It will be unique, and the people that we have got working with us have an intimate knowledge of co-op structures. We will be considering all those factors very carefully to make the best structure that will suit the industry.

John BERGER: Where do you see as being the best place in the regions where it might grow? Do you need irrigation, or do you just need normal, reliable rainfall areas?

Tim SCHMIDT: Yes, good question. In Canada most of it is dry land, and in Australia most of it is irrigation. There needs to be more research on dry land production. That is why Tasmania is such a favourite place for seed: it is because of the reliability and quality of the food. In answer to your question, one of the proposals for the national cooperative, as well as embracing existing proposals, is the setting up of fibre hubs across the country. I need to mention with the cotton industry, it is not just the infrastructure that matches or works with the industry. It is also agronomic issues such as break cropping, and the same applies up in Queensland with the sugarcane industry. There are about 15,000 hectares up there available that are in fallow each year, and it is a perfect fit. You can grow hemp just about anywhere in Australia, and one of the things that aligns with government policy for regional development is where regional fibre hubs are centred, not unlike cotton gin centres, because hemp fibre is notoriously expensive to transport from A to B. The idea is that within the hubs you would not be drawing fibre from more than about 150 k's – the closer the better.

John BERGER: And would you envisage that road or rail would be the best form of transport?

Tim SCHMIDT: I think the cane industry are talking about using the rail. I believe that for bringing the material into the fibre hubs, road would be the most likely there because it is coming from the properties, but then for processed material, easily any number of transport modes could be utilised, picking the most efficient. If you look at the hempcrete industry, which is the building industry, your key markets are obviously going to be the Sydney, Brisbane and Melbourne regions, and then transport to those centres would be important – centralised transport.

The CHAIR: Thanks, Mr Berger. I am very new to this topic. I am not an expert like Ms Payne, but I do know that we legalised the production of industrial hemp at the same time as Canada but their industry is worth significantly more than ours now. Can you please talk us through comparisons to other countries and the value of the industry there, and the economic impact that the current regulations are having here in Victoria and across the whole country?

Tim SCHMIDT: It would be my pleasure. In terms of fibre, China produces and pretty much consumes more than half the production in the world. Just as an example, the People's Liberation Army is clothed in hemp clothes, and there is durability, but there are other issues such as if someone gets their leg blown off or whatever, the hemp fibre acts to help prevent further infection because of the nature of the material. But that is just an aside. One thing that I really harp on, with the groups that we are setting up with the AHC, each group is examining the legislative framework, putting together an optimum framework and then supplying a business case to show why we should change the regulations. I know that the outcome that we are looking for is to be able to show that in 10 years Australia will have a \$500 million hemp industry. The reason I can say that is because back in the 90s when Australia had the opportunity to go down the same road as Canada, Australia did not. Canada did, and at one point they did have a billion-dollar industry relating to CBD. That has pulled back, but they have certainly got a \$500 million industry there consistently developing, and that is because of the regulatory change that they instigated there. And interestingly, the 2018 US farm Bill, or the legalisation of industrial hemp, was initiated for the reason that the US could not stand the fact that the Canadians were making so much money out of so much product. There are still strong imports from Canada to the US of food and other products to do with hemp, but that was the initiation of the change in policy there. You know, if the state governments in Australia and the federal government recognise the opportunities and we can just look historically at what has happened, then I am sure that we can see some changes occur quickly.

The CHAIR: Beautiful. Thank you. Obviously with the changing climate not just in Victoria but across the world, there are agricultural workers or farmers who are looking to perhaps transition to other forms of farming.

Can you please explain to us how suitable hemp is for this transition and what sort of agricultural land could be used for it?

Tim SCHMIDT: Yes. Hemp ticks a lot of boxes for the upcoming challenges that the globe is facing at the moment. One area of key development is the carbon sequestration methodologies that we are developing, and our carbon group will be looking to have approved some methodologies for the hemp industry, or at least an acknowledgement to move forward. I am not talking about ground sequestration; I am talking about the sequestration, for example, that has occurred in the table that you are sitting at where the carbon has been stored.

Hemp does offer a really good opportunity for growers to diversify in their cropping rotations, and one of the reasons for the rapid uptake, up until recently of course, within Tasmania was because of how the hemp fits in to the cropping rotations. Then in the northern latitudes there is an opportunity for – well, some people say three crops; I reckon that is a bit ambitious, but there is certainly potential for two crops. Mind you, you do not want to be running a monoculture. But there are lots of opportunities for the growers to diversify, and there is research in Canada that has been done that shows that subsequent cropping after a hemp crop has yield benefits because of interaction with the microbiome. I mean, six years ago they started researching that, so they are getting close to having some good data on that.

The other issue is of course that water use for hemp is more efficient. If you are growing a 3-metre crop of fibre, you are going to use a lot of water, but the ratio of efficiency is quite good. It is true that there is a case for less use of chemicals in hemp production, but do not believe it when people say, ‘Oh, you don’t use any chemicals. You don’t need any.’ You know, hemp is like any other crop. If you have got a good farmer with good country, you will get a good crop, but yes, if you have got the alternative for them, it is not going to happen.

The CHAIR: Great. Thanks, Mr Schmidt. Dr Mansfield.

Sarah MANSFIELD: Thank you. I might just dig into a few of those things you have just touched on around the environmental impacts and benefits of hemp crops. You mentioned the potential for hemp to play a role in carbon sequestration. Are there other jurisdictions where this is being demonstrated and being used in terms of, you know, for example, reaching carbon reduction targets, whether it is in Australia or overseas?

Tim SCHMIDT: Yes. Look, it is a really good question. I am not acutely aware of anywhere where it has been developed fully. At the moment we are talking with an organisation called Hemp Carbon Standard. You have got to be wary with the carbon factor, of organisations or businesses jumping on the bandwagon and sort of not dotting the i’s and crossing the t’s, but there are a lot of organisations that are sort of viewing the opportunities in the carbon space. I am not aware of anywhere where it has been verified and locked in, but we have one of our committee members whose business is carbon, and he is developing methodologies. I was listening to a professor at the recent Launceston red meats day, and I was asking him about this particular type of sequestration, not the soil sequestration but sequestration through buildings and whatever other things. He said that – and a lot of this comes from Europe – they have not actually established any sequestration benefits with forestry or with timber as yet. He was speculating that the reason for that is because they needed the security of certainty that what is said to be locked up, is locked up. So that relates to what I call provenance blockchain tracking, which is another element that the national co-op will be addressing, making sure that if someone gets paid for carbon being locked up in, say, a building, it can be documented and audited and that there is security of that. So that is one of the issues that is holding that back at the moment, but once they establish that for timber, for the hemp industry it would be just simply following that track.

Sarah MANSFIELD: Great. And is there a role that the Victorian government can play in assisting with that process?

Tim SCHMIDT: Absolutely. Like I mentioned, there are two key things that will put Australia ahead, and if Victoria chooses, can put Victoria at the lead in the hemp industry, and that is research and regulatory change. There needs to be lots of support to be able to develop these methodologies, and lots of support to get global recognition and accreditation. I mean, Australia’s got a very good reputation globally for process and procedure, but it does take resources. There is an opportunity, because the world is changing. I explained there are some, the Hemp CRC committee. There has been quite rapid change over the last two years in the hemp

industry, and it is only going to change more quickly. If you want to make the most of this change, then you get ahead of the game and put resources towards this kind of methodology, development and accreditation and get the structures in place and be the world leader.

Sarah MANSFIELD: Great, thank you.

The CHAIR: Thanks, Dr Mansfield. Mrs McArthur.

Bev McARTHUR: Thank you, Mr Schmidt. Now I imagine this is potentially a very profitable industry?

Tim SCHMIDT: Yes, it certainly is. It ticks all the boxes. We can produce a – and this is what we did in Tasmania when we were first starting off – return once the structures are in place and the markets are established. There is still work to be done in that, but it will be profitable. I mean there is still work to be done. At the New Zealand conference one of the presenters put up 50,000 different applications of the hemp plant. Show me one that is commercially viable. Well, in your very state is where the commercial viability is starting in the fibre industry, and that is with Hexcore, producing a squillion number of CHEP pallets. That is the beginning of the beginning. They have got a commercial venture that is going to be very valuable to them. So yes, the industry will, with the right research and coordination of marketing, be quite profitable.

Bev McARTHUR: But you are suggesting that the taxpayer should get involved, aren't you?

Tim SCHMIDT: Absolutely, in terms of research, as the taxpayer helps with the CSIRO, CSL and all those other organisations where they put Australian agriculture way ahead of the rest of the world through good research and development. I was going to mention, too, the hemp industry ticks all the boxes because there is a commercial return to the industry being demonstrated in small ways. I can say that for the seed industry the sales growth is between 10 and 30 per cent per annum and will continue to grow. But when I say it ticks all the boxes, it ticks the social responsibility box –

Bev McARTHUR: What is that? Can you explain what that is – social responsibility?

Tim SCHMIDT: Yes, so this is in the regional development facet where it creates employment in the –

Bev McARTHUR: But we have got no workers in the agriculture industry. Where are you going to get the workers from?

Tim SCHMIDT: Well, we will have to pay them, I suppose.

Bev McARTHUR: Well, they have got to exist in the first place. Shall we bring them in from overseas, perhaps?

Tim SCHMIDT: Well, that has been the strategy for agriculture in the berry industry, for sure, which has been most useful.

Bev McARTHUR: So are you advocating that with government?

Tim SCHMIDT: Well, I would advocate that the government examine the situation to determine a solution to the problem. I believe that the government is always interested in developing business and employment, and with profitable development of businesses in regional areas then there could be better incentives for people to engage in the industry.

Bev McARTHUR: Currently they of course make it very hard for the agriculture industry to bring workers in from overseas, so you are suggesting they perhaps relax their approach to worker immigration in relation to agriculture?

Tim SCHMIDT: I think that there have got to be sensible solutions to those issues. We do have a very good labour source nearby. If there is peak employment locally, then it just makes sense, the transfer of labour, to be able to let the industry prosper. But that is an issue that agriculture in general is facing, and potentially manufacturing as well.

Bev McARTHUR: Are you part of the VFF?

Tim SCHMIDT: No, not at this stage. We are looking to develop a relationship with the VFF, but, no, we are completely independent. We have got relationships with various – we are looking at the Queensland Farmers' Federation to work with them to work with the producers, but in all essence, I tell you what: we have been by ourselves the whole time. We are entirely voluntary, and we have done a hell of a lot of work. We are very proud of what we have achieved, and we can see that we are working in the right direction and that there is a lot more to come. We are just in this for the benefit of the third tick as well, the environment. Creating industry and jobs and productivity for Australia –

Bev McARTHUR: And profits for the producers, surely?

Tim SCHMIDT: Yes, of course.

Bev McARTHUR: Yes, we want profits.

Tim SCHMIDT: I am a producer myself.

Bev McARTHUR: One more question: so what sort of regulations are government imposing on you in Victoria that are inhibiting your progress?

Tim SCHMIDT: First of all there is the lack of ability to move leaf material about the state. That is very much restricted.

Bev McARTHUR: Can you expand on that?

Tim SCHMIDT: Well, as I mentioned, in New South Wales they have included resin recently as one of the segments of the plant that you can extract to be able to develop another revenue stream. Originally it was food and fibre, and then do not dare take any leaf material off the post – it is for the compost. So with the leaf material in industrial hemp, there is no more than 1 per cent THC, and the CBD levels are quite low, but there are many other extracts available in the plant that could be applied to industry. There are natural insecticides, there are additives for paint, there are nutraceutical products that can be extracted from them.

Bev McARTHUR: Sorry, Mr Schmidt, I think we might be short of time. Maybe if we could take it on notice – if you could give us a list of the regulations that are impeding your progress, that would be very helpful.

Tim SCHMIDT: Yes, in consultation with Lyn Stephenson, who will be presenting. She is the AHC representative for Victoria, and it would be through her that we would supply that documentation.

Bev McARTHUR: Okay. We will ask her later then. Thank you.

The CHAIR: Thanks, Mr Schmidt. Dr Heath.

Renee HEATH: Thank you, Mr Schmidt, for your submission. My first question is: why do you think there is a stigma associated with hemp?

Tim SCHMIDT: Well, that is easy. Everyone – not everyone, I should not say that. Look, I can tell you it has changed rapidly. I started selling hemp food in markets not long after it was legalised in about 2018. We got the general public going past, and tourists. Just to explain it to you, we would sell 250-gram packs, right. Nobody was really interested in anything – ‘Ooh, I don't know whether I will. I'll just try it. What are they? What do you do with it?’ And then quite often you would get the ‘Is it going to make me high?’ jokes and all that sort of rubbish. I got pretty sick of it, really. But some years on, we do not even supply 250-gram packs now. There is a serious percentage of the local community that are regular consumers of hemp food and understand it. And one of the key drivers for the AHC as well is to develop that communication and understanding both through the community and through government because there is a serious lack of understanding of the distinction.

By the way, to make that distinction we classify anything under 1 per cent as hemp. We as a grower and processor group aim to have the unregulated – no sorry, we do want regulations, very much. But we aim to have the growers have the ability to grow and process any of the non-THC products to the point where if it goes

in a bottle and there is a claim on it, then the TGA gets involved. We want to open up the revenue streams of the plant to the growers.

Because of the circle of people I am in – and one of our members said, ‘Oh, we’re in a bubble’ – we all understand it. We can see that industrial hemp is going to be so much bigger than any medicinal hemp components in the long run. We can see the opportunities. In Tasmania we have got good community understanding and acknowledgement of the industry, but we have found that once you come to the mainland, the hemp industry just does not get on the radar. It is not that people are against it; it is just that they do not understand it. The first thing they think of is having a smoke, which is just so far from what industrial hemp is all about. Like I said, it is changing. There is more and more acknowledgement of the real opportunities that are available to the community, to industry and to the globe with the development of the industrial hemp industry.

Renee HEATH: Thank you. I have read a bit of research that suggests that hemp could pose a danger to particularly children, whose brains are developing. Is that true?

Tim SCHMIDT: Yes, certainly high-THC hemp. Well, no, take the word ‘hemp’ out of it – high THC cannabis, that is, marijuana. As I said, the AHC has a neutral stance, but I believe that it is really, really important that there are considered regulations for both medicinal and recreational marijuana. If you are talking about industrial hemp, I do not know where that information comes from because it does not ring true to me.

Renee HEATH: Okay. Thank you.

The CHAIR: Thanks, Dr Heath. We have time for a few more questions. Did you have any, Ms Payne?

Rachel PAYNE: Yes. Thank you for your summary today, Tim. It has been really informative, and I think a lot of the panel members have probably learned quite a bit. You mentioned industrial hemp and the opportunity for the building and construction industry, predominantly hempcrete. Do you mind expanding a little bit more on this emerging technology and the benefits it can have for the Victorian economy?

Tim SCHMIDT: Absolutely. Look, there are a couple of strategies. I mean, there is the regular role of hempcrete, where you put the forming boards up and then pack the material in and it sets. Then there is other technology where they have developed hemp blocks, and there is even one company that has developed structural hemp blocks that are load bearing. But this particular facility in Pakenham has actually developed hemp beams that are every bit as capable of bearing loads as steel can. There is a gentleman by the name of Joost Bakker, who is a bit of a progressive sort of a fellow – he wants to build houses with zero waste. He did a presentation in Launceston recently, and I was asking about hemp. He was explaining that in the next building – I think in Federation Square or somewhere like that, a zero-waste building – he is going to substitute the steel beams with hemp beams. That is an important development. There is the development in the 3D technology space as well. I have been fielding calls from some serious people that like to give to community. I have been fielding calls from a number of organisations that have an interest in being involved in supplying cheaper housing for the community and for the homeless. So that is another aspect – and you can do it, like in 3D, or I think they are even talking about a moulded little building made out of hemp. But there are different ideas that are coming about, and some of them will develop into fairly significant projects, and in some of the cases the people have got in mind to develop cheap housing for the community. So there are a lot of things happening in the space and variability of product. There are huge developments occurring right now just in relation to housing.

Rachel PAYNE: Amazing. I guess just to continue on with that, some of the benefits of hempcrete are around that carbon sequestration and the fact that it is quite cheap to build with. Do you see that that is something that could be expanded upon in Victoria?

Tim SCHMIDT: Look, I would have to say that right now it is not cheaper to use hempcrete. It is actually more expensive. However, if you put a value on the intangibles – and look, to me it is a no-brainer – hempcrete is fire resistant, and where do you get the worst bushfires in the world? Well, I have had experience with bushfires in Victoria and they can be quite nasty. Insurance companies – if you make your house out of hempcrete, well, you will get a cheaper premium; you know, things like that. In Western Australia, as an example of the insulation capabilities, inside the hemp house it was 27 degrees, outside it was 50 degrees.

Rachel PAYNE: Wow!

Tim SCHMIDT: Another emerging factor that will become more and more important – people are acknowledging it more and more – is the question of mould in the house. Hempcrete actually breathes and keeps the relative humidity stable, and you will not find mould in a hemp house. So there are all these factors. You know, if you go to a builder and say, ‘How much is it going to cost to build the house?’ and he says, ‘X amount’, it is 10 or 20 per cent more than the regular house, the concrete house, but if you start factoring in all these other intangibles, it is starting to get to a reasonable value proposition.

The CHAIR: Thanks, Ms Payne. Dr Mansfield.

Sarah MANSFIELD: Thank you. Just going back to the potential for fibre, how does hemp stack up in terms of its environmental impact when you look at other common fibre crops that are grown in Victoria?

Tim SCHMIDT: I am just trying to think. The only other fibre crop I can think of is cotton. Is that correct?

Sarah MANSFIELD: Yes.

Tim SCHMIDT: Yes. As far as we are concerned, there are important synergies between the two industries, and I think that there is much greater advantage for both industries to work together. I can say that cotton uses a lot less chemical these days than what it used to, which is one of the things that is often brought up. Australian cotton is some of the best cotton in the world, and they have magnificent marketing, industry infrastructure, business and planning. Part of that model is what we hope to model the hemp industry on. I look at it more as working with the cotton industry rather than replacing it. I think you have got durability and the benefits of both fibres coming together. And also, as I said before, there are agronomic advantages for combining hemp production with cotton production from a land-use point of view.

Sarah MANSFIELD: So you think there is space for both industries?

Tim SCHMIDT: Absolutely. They are both natural fibres. I think wool, cotton and hemp have got to be winners. Everyone knows the huge, huge issue of the plastics in the industry. I do not know, personally I think they should put a tax on plastics because they are so insidious and are permeating the whole environment. And Australia is in the box seat for that, because we have got beautiful natural fibres – wool, cotton and hemp – and we can, with research support, really become world leaders in that space.

Sarah MANSFIELD: Yes. And just specifically with respect to water use, how do cotton and hemp compare with the amount of water required?

Tim SCHMIDT: See, this is one of the things – when you are discussing the hemp industry, it is not just hemp, it is an incredibly complex industry both through the type of production that you are buying right through to what products you are producing. When you ask that question, it has got to be qualified fairly well. In Tasmania for seed production we generally use around 2.5 to 3 megalitres per hectare. If you are looking at potatoes or pasture, it is 6 megalitres. Of course we do not have cotton down here. I am not entirely sure what the water consumption of cotton is around Gunnedah or something like that, but it does get quite warm. I think it is reasonably high – eight or something like that. If you are growing a hemp fibre crop and it is going to be 3 or 4 metres high, you have got somewhere between 15 to 25 tonnes of biomass per hectare, and that has got to require water. The consumption per hectare – and I do not have hard figures in front of me – would be very similar. In saying that, if you are comparing per unit of organic matter removed from the paddock, hemp is incredibly efficient. But if you are comparing per dollar of value off the paddock, then it might be a different story because cotton’s return on investment is pretty high.

Sarah MANSFIELD: Thanks.

The CHAIR: Thanks, Dr Mansfield. Mrs McArthur.

Bev McARTHUR: I was most interested in your analogy that if you have a good farmer, you have a good crop and you will have a good outcome. Isn’t that the secret to success, not government? Apart from getting government regulations that support your industry, not hamper them, isn’t just a good farmer the secret to the whole show?

Tim SCHMIDT: Yes, well, it does not matter what happens, you are going to have good farmers and bad farmers –

Bev McARTHUR: Correct.

Tim SCHMIDT: Well, not bad farmers, but challenged farmers, I should say.

Bev McARTHUR: Very good.

Tim SCHMIDT: There is always a challenge being environmentally responsible and all that sort of thing. I was discussing timber production with a forester the other day, and they were pointing out that most of the timber coupes in the country are on marginal ground, and that affects the productivity, but if you put it on the beautiful Sassafras volcanic soil, you will get a tree producing at two or three times more per hectare per annum than on the ridge. So there are a lot of different factors.

In terms of government, I think it is important to understand that with the hemp industry there is a lot of structure that is required, and a lot of support, just to get the industry up and going. Like I said before, the thing that is really going to put Australia ahead is research support, because there is 80 years of research elsewhere that has not happened in the hemp industry. You try and count how many times research has occurred on the effect of nitrogen application on the wheat crop. It is amazing. They just keep on doing that. But in the hemp industry there has been virtually nothing, so there is a real need for government support in that sector along with industry – of course industry has to input. But also, as you noted, progressive regulatory change will encourage investment into the industry as well.

Bev McARTHUR: If, Tim, Australia is lagging behind the rest of the world and the rest of the world have sorted all these things out and are way ahead of Australia in the hemp industry, wouldn't you just piggyback onto their research and work? Why would you be needing a whole lot of extra investment in research if others have done it around the world successfully?

Tim SCHMIDT: Good point. Look, two things to that: one is that the rest of the world is not that far ahead of us, to be honest; and I tell you what, there is some real innovation going on in Australia that is already putting Australia ahead of the rest of the world.

Bev McARTHUR: Without government taxpayer support are they getting, you know, ahead of the game?

Tim SCHMIDT: Well, there are two key projects. One is entirely privately funded and the other one is mostly privately funded. As the beneficiary of the government support said, the grant that they received was just enough to fuel it up. It did not cover – it was only a very, very small percentage of the investment into the development. But going back to your further point, there is a desire by the global industry to collaborate. It is very important that, as you pointed out, there are other developments occurring across the globe, and there is a desire by the hemp industry to draw on those advancements in the various countries. So that is happening. It can happen probably more effectively. But when you are getting close to the front, that is when you sort of really need a bit of a push with government.

Bev McARTHUR: A bit of taxpayer help.

Tim SCHMIDT: It is about getting the go-kart going. That is what the research is for: to get us in a position where industry investment is retaining a profit, and the industry can take it on from there.

Bev McARTHUR: Many thanks.

The CHAIR: Thanks, Mrs McArthur, and thanks, Mr Schmidt. That is all we have time for today, but we really appreciate you coming along and your contribution. I am certain that everyone has learnt a lot.

Witness withdrew.