

## INDUSTRIAL HEMP AMENDMENT BILL 2018

### *Second Reading*

Resumed from 11 April.

**HON JIM CHOWN (Agricultural)** [3.22 pm]: I say from the outset that the opposition will be supporting the Industrial Hemp Amendment Bill 2018, which is a good initiative by the Minister for Agriculture and Food to increase the permitted THC level for industrial hemp in this state from 0.35 per cent to one per cent. I have a couple of questions about time frames that I am sure the minister will be able to answer in her second reading reply. I note that it has been five months since the second reading of the bill in this house and, as I am sure the minister is aware, industrial hemp planting will probably commence over the next couple of months, with harvesting taking place around March 2019. I do not know the time frame for this bill, nor do I know where it sits on the table in the other place, but I hope the minister pursues it so that it can get through and help those who are planting this crop by giving them some assurance that if they have accessed new varieties of seed, which will probably increase yields et cetera—I understand that some of them have—this bill will be law by the time the plants are tested for THC. If it takes another five months to get the bill through the other place and achieve royal assent, that would just about knock them out of the time frame. I hope the minister has taken note of that and can help us with a reply. My office has had a number of calls from growers about that particular matter. They need assurance from the minister about the time frame so that they fit within the requirements of the law as it stands.

To give members some background about this particular crop, of course, when we talk about hemp, people get it mixed up with cannabis, which is still illegal and will remain so for many, many years. Hemp and cannabis have the same genesis. Hemp may look like marijuana, but apart from looking similar, it is very far removed from marijuana as its THC levels are very, very low. Of course, THC refers to the tetrahydrocannabinol content; I hope Hansard gets that, but I am sure they will check it. People can smoke industrial hemp until their eyes turn blue and their lungs fail, but they will not get high on it. I heard an anecdotal report that we do not see much industrial hemp growing on the sides of roads because apparently people driving by do not recognise it for what it is and transplant it to their back gardens. I am sure that they are very disappointed when it comes to harvest time.

Hemp is probably one of the earliest crops cultivated by mankind to be used as a fibre. One of the oldest known artefacts of our prehistory is a small piece of hemp fabric that survived more than 8 000 years of weathering. The Chinese were the first to recognise its usefulness when they started to make paper out of it in around 150 BC. Hemp, which is what we are looking at in this bill today, is a very important and old crop. Hemp probably produced the world's first form of paper. During the Middle Ages it became an important crop of enormous economic and social value, supplying much of the world's need for fibre. The word "cannabis" is the Latin word for "hemp". The world was discovered by the power of sail and ships' sails and rope were made out of hemp. It became quite a strategic industrial crop in the United States during the Second World War because hemp rope was absolutely essential in tying up all sorts of vessels, from cargo ships to ships of war. I might add that America is a great source of industrial hemp. In 1632, the Virginia General Assembly mandated —

... that every planter as soone as he may, provide seede of flaxe and hempe and sowe the same.

In fact, people could be jailed in America for not growing hemp during certain periods.

**Hon Alannah MacTiernan:** That sounds like a Greens policy!

**Hon JIM CHOWN:** Yes, but it is not! It is the Labor Party's—or not that one; that one was America's. As the minister well knows, we cannot get anything out of hemp other than rope and clothing et cetera

For more than 200 years, hemp was considered legal tender and could be used to pay taxes in America. Historians have first drafts of the Declaration of Independence that were written on hemp paper. I like this amendment to the Industrial Hemp Act because although industrial hemp is an old crop, in this state it is quite a new crop, with only a certain number of growers in the south west trying to get an industry underway. As the minister indicated, the perfect place for growing this crop in the north would be on the Ord River, which has the right temperature, the soil and water source. Who knows where this crop will end up? But we need to give hemp growers encouragement, and that is what this bill is about.

I have some more background information. On 28 April 2017, a meeting of the Australian and New Zealand Ministerial Forum on Food Regulation approved the sale of hemp seed for human consumption. It is my understanding that, prior to this, hemp seed could be bought in certain food shops throughout the state, but it was not approved for human consumption. In fact, a disclaimer was stuck on the product saying that it was not for human consumption. I am not sure what the hemp seed was being sold for if not for human consumption, but that disclaimer was there for people who wanted to do things other than put it on their cereal. The change to that code

**Extract from Hansard**

[COUNCIL — Tuesday, 21 August 2018]  
p4829b-4837a

Hon James Chown; Hon Diane Evers; Hon Rick Mazza; Hon Colin De Grussa; Hon Colin Tincknell; Hon Simon O'Brien; Hon Alannah MacTiernan

---

came into effect on 12 November 2017, opening up a new opportunity for the hemp industry in the supply of seed for human consumption.

Until this bill becomes law, Western Australian hemp growers will continue to struggle with the fact that they are allowed to grow crops with a maximum THC level of only 0.35 per cent. As I have already stated, the bill will lift the THC content to one per cent, as set out in an amendment to section 3(1) of the Industrial Hemp Act. Once this bill goes through, the change will be much welcomed by the industry. Queensland, New South Wales, South Australia and Tasmania already permit up to one per cent THC in their hemp crops. This change will allow WA growers to compete in this evolving marketplace; it will make it a more level playing field in terms of the competition for this product from other states.

Adhering to the requirement of a THC level of 0.35 per cent or one per cent does not change much. Anyone who wants to grow this crop must have an industrial hemp licence, which is administered by the Department of Primary Industries and Regional Development. The Industrial Hemp Act 2004 also outlines that there is a registrar for the purposes of the act. The legislation allows licensees to cultivate, harvest and process industrial hemp on a commercial scale. The cost to obtain a licence is currently \$328, exclusive of GST, and the cost to renew the licence is \$131, exclusive of GST. It is a requirement of the act that anyone who wants to grow this crop must apply for a licence to cultivate, harvest or process industrial hemp. The term of the licence is up to three years. Applicants require a current national police clearance spanning the last 10 years and must have applied for this before a licence is allocated. If an applicant has lived for some or all of the last 10 years outside of this country, a police clearance for the relevant country must also be obtained. Two character references must also be supplied by each relevant person on the application. Applications are forwarded to the Commissioner of Police for assessment of the suitability of the persons applying for such a licence before the licence is granted. Under section 8(3) of the act —

The Registrar must refuse to grant a licence under this section if —

- (a) the applicant has been found guilty of an external serious drug offence or a serious drug offence during the period of 10 years ending on the day on which the application was made;
  - (b) the applicant has an association with a person who —
    - (i) is not of good character and repute; or
    - (ii) has been found guilty of an external serious drug offence or a serious drug offence during the period of 10 years ending on the day on which the application was made;
- or
- (c) the means by which, the manner in which or the premises at which the applicant proposes to cultivate, harvest or process industrial hemp are not suitable for the purpose of carrying out that activity.

I will go through some things that this crop can achieve. I have already mentioned the use of hemp in the history of textiles, going back 1 500 years. It is an alternative material for paper, of course. Nowadays, it is also used to build houses. Homes built out of this product do not require heating or air conditioning as the walls can breathe. I understand that the cost is equivalent to building a normal brick home, but of course the savings are substantial in terms of the cost of electricity to cool or heat an establishment. We are all aware of industrial hemp oil and its emollient properties—it is becoming a common ingredient in lotions for hair and cosmetic purposes. Hemp has a role in food and nutrition. Hemp seed retails at around \$50 a kilo, which makes it a very expensive crop. I am talking about hemp seeds for human consumption. They are very healthy—they contain all 20 amino acids, including the nine essential amino acids that our bodies cannot produce. Hemp seed, which is now available for human consumption, has health benefits. It is a great source of protein. The two main proteins in hemp seed are edestin and albumin. Both these high-quality storage proteins are easily digested. Hemp seeds also contain all sorts of vitamins, such as vitamin E, as well as phosphorous, potassium, sodium, magnesium, sulphur, calcium, iron and zinc. This is a very good product. I assume that once the industry is able to source hemp seed without the restriction of having 0.35 per cent THC and can source seed that is more productive, it will give enormous encouragement to the industry and give it the ability to expand this crop in the agricultural area, certainly in the south west and I would certainly hope in areas like Kununurra. New industries need all the encouragement possible. This bill gives them that sort of encouragement. I hope that other members will have something to add to this debate. I look forward to hearing from the minister.

**HON DIANE EVERS (South West)** [3.36 pm]: I rise as the lead speaker for the Greens on the Industrial Hemp Amendment Bill 2018. The Greens also support this bill. I will try to not duplicate anything that has already been said. The original Industrial Hemp Bill was passed in 2003 with bipartisan support—Labor, the Liberal Party, the

**Extract from Hansard**

[COUNCIL — Tuesday, 21 August 2018]  
p4829b-4837a

Hon James Chown; Hon Diane Evers; Hon Rick Mazza; Hon Colin De Grussa; Hon Colin Tincknell; Hon Simon O'Brien; Hon Alannah MacTiernan

---

Nationals WA, the Greens and One Nation all voted in favour of it. That legislation allowed for the cultivation, harvesting and processing of industrial hemp with no more than 0.35 per cent tetrahydrocannabinol. An important point that I would like all members to keep in mind is that the act permitted the minister to appoint inspectors with powers of entry to non-residential premises to ensure compliance with the act and licence conditions. The act made consequential amendments to the Misuse of Drugs Act. As a result, section 4 of the Misuse of Drugs Act now specifies that the act does not apply to processed industrial hemp, defined as any product made from industrial hemp or industrial hemp seed that does not contain more than 0.35 per cent THC nor any viable whole cannabis seeds. That is also an important point: when the seed is sold for food, it is treated so that it is not viable—that is, not able to create a plant on its own.

This bill is very simple. The only change it will make is to increase the THC content allowed from 0.35 per cent to one per cent. No other change has been indicated. This will allow people who are growing industrial hemp to not have to destroy their crops, as they have had to do in the past. Even though someone may plant a seed that is under the 0.35 per cent limit, the circumstances of the growing season could produce a plant with leaves with a higher THC level. In that case, when the Department of Agriculture and Food tests the leaves, if the plant is found to be above that level, the crop has to be destroyed and the seed is no longer available for human consumption. This puts another huge cost on our farmers, which they should not have to manage. As it is now, to grow plants with a THC level of less than one per cent, growers plant seed with a THC level under 0.5 per cent to allow for the variation that occurs during the growing season. In terms of monitoring and compliance, the department has a compliance program to check whether THC levels are within the statutory limit. The licensee will notify the department of the crop and officers will attend and take samples for testing. The plant is tested but not the seeds. As I have said, the seeds either do not contain THC or contain it in such minute quantities that it is really not going to make a difference. Someone could not eat enough of the seed to make a difference in terms of the THC content. The plant is tested. The result is a pass or fail; if it is a fail, it is not industrial hemp and therefore must be destroyed and the Department of Agriculture and Food has to be notified of any failed result, should a grower do the testing on their own. Food Standards Australia New Zealand is the body that develops our food standards. In 2015, a ministerial forum was held to assess the proposal that the Australia New Zealand Food Standards Code should be changed to permit the sale of those low tetrahydrocannabinol hemp seeds, and in 2017 the change was put through to allow us to buy these seeds as food—these seeds had been sold in stores for other purposes—so we can add them to our muesli, or whatever we would like to do, to get the health benefits of taking in these seeds.

The FSANZ approval report of 23 March 2017 indicated that low THC hemp foods cannot realistically be eaten in the quantities that would be needed to achieve a therapeutic dose. It also explains that the one per cent figure was selected for consistency with the figure used in various Australian jurisdictions. Already, Queensland, New South Wales, South Australia and Tasmania have it set at one per cent. I think Victoria is looking at legislation to also change it. It makes sense for it to be consistent across the country. There were concerns that if people were eating these hemp seeds, the THC would show up in drug testing, but a report came back stating that it was highly unlikely to cause a positive drug test result.

As a result of the ministerial forum's decision, the code has been changed to permit low-THC *Cannabis sativa* seeds and seed products to be sold as food, subject to a number of conditions. As I said, the leaves and the flowering heads meet the requirement for below one per cent THC content. Other conditions of sale are that the seeds are not viable and are hulled if they are for retail sale. They must also not contain more than five milligrams per kilogram of the total THC. In the seeds, that is 0.0005 per cent—a tiny amount. They must contain only cannabinoids that are naturally present and the product must not be labelled in any way that uses the words “cannabis” or “marijuana” or shows an image. There is quite a bit of regulation to make sure that the seed that people are consuming will not affect them in any way other than for the health benefits they might get from it.

As we have heard, industrial hemp has been used for a long, long time for many different things. I think we have heard some of the items—paper, clothing and even biodegradable plastic. We can have plastic and allow people to get their bags, plastic cutlery or whatever, but it will be made from hemp and therefore will biodegrade a lot quicker than the current types of plastic we use. It can be used for paint or insulation. It can even be used for biofuels. It is interesting that going back some time, because this plant has been illegal, we have not done much research on it. As we develop and start to grow more industrial hemp, we will find more and more uses in areas where it can replace some of the things for which we have been using petrochemicals. As I said, rope is a prime example. Prior to the introduction of nylon, most ropes were made of industrial hemp, so it is really useful in that area. There are also cosmetics—moisturisers, perfume and so forth. Some other uses have not been mentioned. I believe one of America's first paper mills began with hemp and allowed America its free press without having to justify its request for paper from England. In fact, the American Declaration of Independence was printed on hemp. Van Gogh painted on hemp canvas. It has been a part of human life for some time. Even Henry Ford of the

**Extract from Hansard**

[COUNCIL — Tuesday, 21 August 2018]  
p4829b-4837a

Hon James Chown; Hon Diane Evers; Hon Rick Mazza; Hon Colin De Grussa; Hon Colin Tincknell; Hon Simon O'Brien; Hon Alannah MacTiernan

---

Ford Motor Company originally used hemp not only as fuel, but also to create the panels for his vehicles. He was very proud to show that they were resistant to shock by hitting one with a sledgehammer to show just how strong it was. It is a crop, the quantities of which we use will only move up from here because it has very many uses.

I should say, though, that the demise of hemp being used for these purposes followed the failure of alcohol prohibition in the US. When the government found that prohibition did not work, hemp very quickly became a target when the government went after other drugs. At the same time, nylon was developed, which made it very easy to make that transition to nylon rope. I understand that in World War II when they could not keep up with nylon production, it was back to “grow hemp for your country”. Hemp was needed in the US to support the needs of fighting the Second World War, so it went back to being grown. But, of course, when that war ended, it again became a criminal activity to grow hemp.

I understand that Canada grows around 68 000 hectares currently. Australia is a bit slow to come onto this—Queensland has a small program, New South Wales has 200 to 300 hectares, Victoria has 450 hectares and Tasmania has 450 hectares. The bigger farmers over east have access to harvesting machinery. It is interesting that in WA, it is still a fledgling industry. Although only about 60 hectares were grown last year, I understand that the application for licences doubled in the past year. A large number of people are coming onto this knowing that it may be something they can use.

Of course, we have challenges ahead of us. Due to the lack of research, we do not know where our long-term markets are. We do not have a lot of agronomic understanding of how it can best be used. Our harvesting methods at this point are still inefficient and we do not have any processing plants. There is much more to be done in this area to provide opportunity and potential for the industry. So far, most of the interest in WA has been for hemp as food, because, of course, for food we need to just harvest the seed, whereas to use the whole plant, processing is also needed. Cooperatives in the south west are looking at trying to bring in machinery and equipment to do this. There is also a lot more interest in using hemp for construction. In fact, some friends of mine recently built 11 houses as part of a community housing project in Denmark all with hempcrete. Unfortunately, even though we grew hemp in Australia at that time, they found it was more beneficial to the project to import the hemp from France, so we brought it in. One of the people purchased a machine to turn the hemp into hempcrete to build their houses. Hempcrete is used on a framed house and is put on as a render. I understand research is being done on building tilt-up hempcrete panels, similar to tilt-up concrete panels. We can take a saw to it and cut out windows and doors wherever we want to because it is lightweight and people can lift it into place. It has great insulation properties and is weather resistant. It has so many benefits to it that it could be a way that we will be building our houses in the future and using much less fixed energy. Plenty of research is going into what we can use it for.

As I said, we do not have a lot of agronomic understanding of hemp yet either. From what I understand, it can be used for rotational cropping. It is a deep-rooted plant, so it gets down to the nutrients quite low in the soil and to the water. It also breaks up the soil, so compacted soils will be better off. It fits right into the regenerative agriculture practices I have talked about a number of times over the past 12 months. It also removes toxins from the soil. Here we go—we can grow hemp in some areas where there may have been waste treatment plants or toxic dumps, taking the toxins out of the soil, rehabilitating the soil and using the crop to make building materials that will not leach the toxins back into the environment. A lot can be done with it. I hope that the Department of Primary Industries and Regional Development takes on some of the research or at least helps support local universities to undertake some research on this crop. I see it as a strong opportunity for what we can do with some of our land, along with this regenerative stuff, because it has many benefits to it. It even provides mulch or compost. It can provide shade to other plants —

**Hon Alannah MacTiernan:** Just as well Hon Jim Chown had left before you said the “R” word.

**Hon DIANE EVERS:** I know; he will get used to it. I will keep saying it. Hemp needs a considerable amount of water, but, of course, with that regenerative agriculture, our aim is to improve the soil’s ability to hold water. If we can do that hand in hand with a crop like this, there will be benefits all around.

It has been difficult maintaining the consistency to meet the 0.35 per cent THC level. In 2016–17, about 20 to 25 per cent of the crops exceeded that level. Imagine putting in a crop with a 25 per cent chance that it would have to be destroyed. That is not a good reason to take it up, yet a number of people still wanted to do this. With this change to one per cent, many more people will be able to take that step and start growing hemp. I do not know what that percentage would go to, but I have spoken to someone in the industry who said that with this new seed that they are bringing in that is under 0.5 per cent, they do not think that they will have any problem at all staying below that one per cent level. That should allow more people to take it up as one of their crops as part of their farming.

**Extract from Hansard**

[COUNCIL — Tuesday, 21 August 2018]  
p4829b-4837a

Hon James Chown; Hon Diane Evers; Hon Rick Mazza; Hon Colin De Grussa; Hon Colin Tincknell; Hon Simon O'Brien; Hon Alannah MacTiernan

---

Seed has been a limiting factor in growing the industry. France and Canada produce seed, but we need a seed suitable to WA growing conditions. Again, more research needs to be done. We need to support this industry so that we can do that research and develop the right seeds to grow in our landscape. It may be that we have a different variety in the north from what we end up with down south, depending on water levels, nutrients and hours of sunlight, because I understand that the flowering is triggered by the shortening days. It also has certain pH requirements, but that is something we could develop to match. It seems fairly robust against local pests and diseases. That is good, because we will not have to spray it with as many harsh chemicals to keep pests away. Anything we can do to minimise that is of benefit to our environment and population.

There have been trials in the Ord where I understand the water requirements are being met, but whether it is sufficiently competitive with other crops has so far been questionable. That will come with the research. As production values increase, it will make it more likely to give us the financial return that we need to do it. Most crops are in the south west, especially between Albany and Esperance, where the hemp is grown as a summer crop under irrigation, with sowing from September to November and harvesting from April to May. It is also used as a rotation crop with potato crops, and a lot of potatoes are grown down there.

I support this legislation wholeheartedly. I look forward to the change. I look forward to support for the industry to ensure that we develop the benefits of industrial hempseed, because from an environmental point of view, this crop can solve a lot of the issues about how we will manage without takeaway containers or plastic bags or with the amount of clothing that is going into rubbish. At the end of their life, we can still use hemp clothes for rags and then we can compost them if we want to. There are many more benefits in using a renewable resource such as this for not only our environment, but also our farming community, which now has access to another reliable crop to boost the farm income.

**HON RICK MAZZA (Agricultural)** [3.55 pm]: I rise to make a few remarks on the Industrial Hemp Amendment Bill 2018. It is a very simple bill. Essentially, it amends the Industrial Hemp Act 2004 and the Misuse of Drugs Act 1981 by simply deleting 0.35 per cent and inserting one per cent. "Industrial hemp" is defined under the Industrial Hemp Act 2004 as —

... cannabis, the leaves and flowering heads of which do not contain more than 0.35% of tetrahydrocannabinol;

I sympathise with Hon Jim Chown; it is a bit of a mouthful. It is commonly known as THC, which is a lot easier to pronounce. THC is a psychoactive mind-altering ingredient in marijuana, but, of course, industrial hemp has such a low trace that it does not have that effect. Hemp is mainly cultivated for fibre in the stem, multipurpose oil in the seed, and a resin secreted by the epidermal glands. It has been used for a large cross-section of items in our modern world such as paper, rope, fuel, animal bedding, textiles, animal feed, oil and food for human consumption from hulled hempseed. In more recent times, the hemp stalk has been used in particle board for building and insulation within the building industry. When hemp is mixed with a binder, it can also be used in building framework or made into bricks, as it is very hard, with fire and pest-resistant properties.

In WA, the cultivation, harvest and processing of hemp has been legal since 2004 under a licence issued by the Department of Primary Industries and Regional Development. The industry is still in its infancy, with only 47 licences issued as at 30 June this year. There were 68 hectares of hemp under cultivation in the 2017–18 season, so it is a very small and emerging industry. It gives farmers a bit of a diversity to trial some of these hemp plantations, and as time goes by, hopefully, Western Australia will be able to fill more of the market and it will become a larger industry. The area of planting for the 2018–19 season will be similar to that in 2017–18, with the majority of crops being planted between the months of October and December. The majority of the hemp is grown in the southern parts of the state, in areas such as Manjimup, Kojonup and Nannup, and trials are expected to be held in the Kimberley and Pilbara next year.

In April 2017, the Australia New Zealand Food Standards Code standard 1.4.4 was amended to allow the sale of *Cannabis sativa* as food if the leaves and flowering heads did not contain more than one per cent THC. It will ensure that we are not left behind other jurisdictions that already have legislation containing the higher level of one per cent. It will allow farmers to access varieties that are better suited to the WA environment conditions. Hempseed has also been seen as a superfood, with omega-3 and omega-6 in the appropriate rates for human consumption and protein content between 20 and 30 per cent. We are already seeing hemp burgers, ice-cream and crackers sold to the WA market. Locally made milk from hempseeds has hit Perth at \$4 a litre.

**Hon Jim Chown:** And hemp beer as well.

**Hon RICK MAZZA:** Yes, I am getting to that, Hon Jim Chown. Supporting this bill will give farmers the opportunity to supply this ever-growing health food market by value-adding and ensuring it is a high-value product. A south west brewer made history in November by releasing WA's first hemp beer called Dr Weedy's Hemp Ale, a creamy brown ale with a nutty taste. Hon Jim Chown may have been partaking of that at some stage.

**Extract from Hansard**

[COUNCIL — Tuesday, 21 August 2018]

p4829b-4837a

Hon James Chown; Hon Diane Evers; Hon Rick Mazza; Hon Colin De Grussa; Hon Colin Tincknell; Hon Simon O'Brien; Hon Alannah MacTiernan

---

Hemp production is seen as good for the environment, as was laid out by Hon Diane Evers, on many levels. The plant naturally repels weed growth and has few insect enemies, so it needs less herbicide and pesticide than do comparable crops. It is also interesting to note that the German car manufacturer BMW is replacing some plastics used in its car production with hemp. The passage of this bill will promote economic and social benefits such as job creation and sustainability in agricultural areas suffering from high unemployment rates. The government will obviously need to play a strong role to ensure that the tetrahydrocannabinol level is no more than one per cent. Overall, I think this is a good piece of legislation and I will be supporting the bill.

**HON COLIN de GRUSSA (Agricultural)** [4.00 pm]: I rise to make some brief remarks on the Industrial Hemp Amendment Bill 2018 and indicate that the Nationals WA will support it, as we support any efforts to add opportunities for our agricultural industry.

This bill is relatively simple. Essentially, it will make a change to the tetrahydrocannabinol level in what can be defined as industrial hemp. As Hon Diane Evers alluded, that is necessary for a number of reasons, such as climatic variability through the growing season impacting on the THC level in industrial hemp so that, despite the growers' best efforts, their crop falls outside the limit and is not able to be used. I think it is good that this change will happen. It will bring us in line with other jurisdictions and is also a result of changes in the Australia New Zealand Food Standards Code. I believe it is also important because it will offer opportunities to farmers in the state. It is very important for all farmers to have every opportunity to try a number of different things in their farming systems. Agriculture has no one-size-fits-all solutions, so any opportunity for new industries and new crops that can add diversity to a farmer's cropping program and rotations is a good thing.

Indeed, in my own farming business we tried a number of different crops over the years. Back in the 1990s my father was one of the first to try various summer crops such as lablab, sunflowers, mung beans, sorghum and millet. Of course, they performed variably. We would have liked to have tried hemp, but it was not available to us back then. Those crops added diversity to our cropping rotation, which is good because it broke the cycles of disease and pests and did a number of things to the soil. Despite having grown crops that people thought would use up moisture in the soil and make the following crop potentially suffer, we found it was quite the opposite. Our experience was that crops that followed those alternative summer crops were generally better, cleaner and easier to manage for disease and weeds. I wholeheartedly support the idea of adding diversity to cropping rotations.

I will not say much more other than that these new options for farmers are good, but we must keep our eyes very firmly focused on the mainstays of agriculture and our major industries in this state. We should be mindful to add new options, but never at the expense of what already exists. We support this bill and look forward to its passage.

**HON COLIN TINCKNELL (South West)** [4.04 pm]: One Nation fully supports the Industrial Hemp Amendment Bill 2018. When I first got into Parliament, I met with members of the hemp industry in the south west and discussed these issues. I did not have much background in this and they provided a lot of information to me. I realised how important hemp could be to the whole community. As Hon Jim Chown mentioned, it is grown as far north as Kununurra and places like that in the north west. In the south west, where I am a member, I looked at operations in Nannup and Manjimup to seek further information and I was very impressed. As Hon Rick Mazza mentioned, hemp can be used for many things. It is fireproof so it can be used in building materials and many other things such as clothing, drinks, food and beer. It is a very versatile material. The industry needs encouragement from the government and I commend the government for introducing this bill. The industry is small; I do not think we should get carried away with how big it will be. However, as Hon Colin de Grussa from the Nationals WA mentioned, it gives farmers extra opportunities. All farmers are looking for different opportunities, depending on weather, climate and many other things that they will face as the years go by. This is another opportunity for them to grow their options on the farm. We are very pleased to support this bill. One Nation realises that this industry is small but it is very important, so we support this bill.

**HON SIMON O'BRIEN (South Metropolitan)** [4.06 pm]: I want to make a brief contribution to the second reading debate on the Industrial Hemp Amendment Bill 2018. It seems that everyone is in furious agreement that it needs to pass, so some matters that I might have reserved for the committee stage might be raised now and can perhaps be answered to my satisfaction by the minister in her reply to the second reading debate.

A number of members have explained the bill in very brief terms. Indeed, it is a very brief bill. The effective part will redefine processed industrial hemp to permit a maximum delta-9-tetrahydrocannabinol—or THC—content of one per cent, whereas the Industrial Hemp Act presently provides for a maximum of 0.35 per cent. My question is about how this is worked out because I am genuinely interested to know. One concern about growing hemp for mainstream purposes is that some of it may be diverted for drug abuse purposes and if that is done on a sufficient scale, it can extend to the involvement of criminals working in a cooperative and organised way. The question of the THC content is very material and important. The global genus includes a number of varieties of cannabis. *Cannabis sativa* is the variety that is commonly used to extract THC, which can be used for purposes of abuse or

**Extract from Hansard**

[COUNCIL — Tuesday, 21 August 2018]  
p4829b-4837a

Hon James Chown; Hon Diane Evers; Hon Rick Mazza; Hon Colin De Grussa; Hon Colin Tincknell; Hon Simon O'Brien; Hon Alannah MacTiernan

---

recreational use, depending on whether you are a fan. THC is just one of dozens of cannabinoids that can be extracted from this plant. Some of those cannabinoids may well have therapeutic uses. Even though I have been a trenchant anti-normalisation spokesman in the past and continue to be, I have also been a supporter of the medicinal use of cannabis. At this stage that is a fledgling branch of pharmacology and a lot has to be done before it becomes mainstream. Some people might think that they would like to see that as getting a prescription to practice so-called recreational cannabis use. That is not how a proper medicinal regime would be carried on—not through the smoking of joints, even though people may be a fan of doing that, and that is a matter for them.

**Hon Colin Tincknell:** A lot of it is not much benefit to them medically, anyway.

**Hon SIMON O'BRIEN:** I do not know about that, but I have had a bit to do with other things though.

This bill of course does not relate to medicinal uses of cannabis or any of its extracts, so we will leave that part to one side for now; this is about the industrial use of hemp. As members have pointed out, there is a great enthusiasm for this new industry because, let us face it, we have had it for years. It has been used to make rope, fabrics and so on. We are talking about the fibres of the plant, not the tetrahydrocannabinol that is extracted for purposes of abuse. We are talking about parts of the plant that, happily, are quite different. The seeds of the cannabis plant typically contain no THC at all. I am not sure what the seeds are good for apart from propagation. It is proposed that the stalks and other fibrous elements of cannabis plants be increasingly exploited to manufacture very useful, natural items that contain some of the very useful properties that Hon Jim Chown alluded to in his remarks just a short while ago. Nelson's Navy, I think, was one of the main users of industrial hemp in the forms of rope and all forms of cordage, as they used to say in the Royal Navy dockyards of the day. That is the argument that will appeal to traditionalists, such as me. Indeed, members on all sides of the house seem to be very agreeable to this bill as we exploit this new wonder herb to the full extent that we might legitimately do so.

I come back to my particular concerns—in fact, not concerns but questions—that go to the very heart of this amendment. I want to make sure that we have examined this bill from the point of view of dealing with exactly why this change is necessary and why it needs to be treated with caution. I have mentioned that the seeds of the cannabis plant typically contain no THC. That is the *Cannabis sativa* plant I am talking about. The stalks typically contain some small amounts of THC. The leaves, traditionally, back in the day and still, would be chopped up to a fine level for the use of rolling into joints to smoke.

**Hon Alannah MacTiernan:** Are we about to get a confession?

**Hon SIMON O'BRIEN:** Not by interjection, but the minister can tell us all about it in reply if she wishes to.

**Hon Alannah MacTiernan:** It's terrible that I'm suggesting that you might've done anything exciting.

**Hon SIMON O'BRIEN:** I am a member of the upper house and a former Liberal Minister for Finance. You cannot get much more unexciting than that!

I am not a chemist, but one can read all sorts of literature that attributes a typical THC concentration to the leaves of the cannabis plant, and this is where it starts to get interesting. Many is the time that I have seen references to THC content in the leaves of the plant ranging from one to three per cent. I am not a pharmacologist and I have not been in any position or inclination, I might add, to verify this, but there are those who measure these things and indeed will be doing so in the course of administering the regime that is contained within the Industrial Hemp Act as it will be amended by this bill before us. If we are talking about increasing the rate of THC to a maximum of one per cent, one might ask: where do the leaves fit into this? We will then get the flowering heads of the cannabis plant, where it has the highest concentration of THC. Indeed, if one is manufacturing some of the higher concentration cannabis forms, such as cannabis resin, it typically starts with a process of shaking the pollen and what have you out of the flowering heads of the plant, threshing it out to form the basis of a cannabis resin or hash, which typically has a fairly high THC content, well above anything contemplated by this regime. Is the minister able to provide information on that, from advice provided to her? I am not suggesting any personal experience, of course, in these matters.

That is my understanding, in broad form, of THC content. It raises these questions: What is the actual method by which THC content is measured? Is it by an average amount over the sample of an entire plant? Does it include the roots? Does it include soil attached to the roots? How much of the plant is measured to find an average content? If we find an average content of the plant, what are the component concentrations? If there is a THC content, for example, in the flowering heads of the plant that we are growing that well exceeds one per cent, surely that then leaves a potential avenue for abuse if that is not factored into the sampling program. I do not want to cast any impediments on continuing to further develop an industrial hemp industry, far from it, but these are the sort of questions that arise in my mind. I understand, and I can be corrected if this is not accurate, that the current regime provides that if a grower fails the test, as prescribed by law, then the whole crop is destroyed. There is a very

substantial imperative for a grower to make sure that he does not exceed the permitted THC content, but I would appreciate it if the minister could let the house know a little more about how those measurements are made. It may well be, for example, that there are forms of the genus *Cannabis* favoured by growers that are not particularly potent with THC content as opposed to others that are. In previous debates in this place many moons ago, we debated the potential normalisation and legalisation of cannabis by the then Gallop government. A lot of that debate was about advanced forms of cannabis designed specifically to raise the THC content, and phrases like “Skunk” and what have you were thrown around the chamber in the course of that debate. I certainly do not have any problems with a properly regulated industrial hemp industry. That would be a good thing for Western Australia.

It has been some time since I was involved in the illicit drug sector. However, the last time I looked, Tasmania was the second largest producer in the world of licit or legal opium poppies for the manufacture of narcotics. I imagine that the Apple Isle has very tall fences around its opium poppy plantations. I might get down there one day and have a look. At that time, the largest producer of legal opium was India. That might have changed; I do not know. That shows that it can be done well and to everyone’s benefit. I do not want to hold up the passage of this bill. However, I wanted to share those concerns with the minister, and I am sure she will help educate us a bit more about this bill.

**HON ALANNAH MacTIERNAN (North Metropolitan — Minister for Agriculture and Food)** [4.20 pm] — in reply: I thank all members for their enthusiasm and support for the Industrial Hemp Amendment Bill. I guess everyone gets the fact that we are not pretending that this is an industry that for the next decade will rival our wheat and barley industries. Nonetheless, it is an emerging crop, and Western Australia has been behind in the field compared to other states. It is now time for us to work together to try to move this forward. Earlier this year, Hon Jim Chown and I attended the Australian Industrial Hemp Conference. Therefore, I am confident that we will get a lot of bipartisanship on this bill. I hope that we will get this bill through this place today and down to the Legislative Assembly so that when it returns in two weeks, it can consider this bill and we can get it through the Parliament. There will then be the small matter of getting the bill proclaimed. We are very mindful of the time sensitivity of this legislation, and I have been making the leaders of the government both here and in the other place aware of that. Most of the hemp production in Western Australia is in the southern half of this state. Hemp crops are very responsive to daylight; therefore, it is very important to maximise the length of the day. We are very conscious that the end of September is the most appropriate time for cropping, and that is why we need to move forward with this bill.

I do not need to go over all the uses of industrial hemp. I think members between them have canvassed the huge range of products for which industrial hemp can be used. I know the particular development that Hon Diane Evers talked about, although I have not seen it. Another builder, Gary Rogers, is building fantastic homes out of hemp, in a fabulous setting. They are not geodesic domes. They are not hippy structures. They are homes that members of the National Party would be happy to live in.

**Hon Colin de Grussa** interjected.

**Hon ALANNAH MacTIERNAN:** Yes, a straw bale home. There you go!

There is great potential for industrial hemp. It is interesting that we are talking with the Miriuwung–Gajerrong, which is, as the member knows, a traditional owner group in Kununurra that has extensive landholdings as part of the settlement on Ord stage 2. They have a fantastic building company and have expressed interest in being involved in this. We are talking about the Miriuwung–Gajerrong developing plantations and potentially building a processing facility and building housing using a locally-produced product.

**Hon Colin Tincknell:** I have heard that for the Milan fashion industry, their edge is the use of hemp in their clothing. Over the last 50 years, that has given their fashion industry the edge.

**Hon ALANNAH MacTIERNAN:** That is certainly another direction. We are just talking about what we are doing with the Miriuwung–Gajerrong and the possibility of reducing the cost of housing in the north of the state. If it is possible for them to produce their building product in situ, obviously there will be some good systemic change. It is early stages.

Reference was made to some trials in the Ord. In about 2009, some trials were done by a private company. However, the company did not complete those trials, and it does not appear to have kept very good records; therefore, that has not borne a lot of fruit. However, I assure members that we have taken up the slack and are again trialling some product in the Ord.

Hon Rick Mazza talked about the size of the crop. Yes, the size of the crop is only small in Western Australia, at 68 hectares, as the member said. We are hoping the crop will be a bit larger in this coming season. Tasmania has 600 hectares of industrial hemp. Many of the hemp plantations in North America are very extensive. It is certainly an industry with potential. In response to Hon Colin de Grussa, we are spending \$45 million on grains research

**Extract from *Hansard***

[COUNCIL — Tuesday, 21 August 2018]

p4829b-4837a

Hon James Chown; Hon Diane Evers; Hon Rick Mazza; Hon Colin De Grussa; Hon Colin Tincknell; Hon Simon O'Brien; Hon Alannah MacTiernan

---

and development. We get that wheat, barley and canola are the big industries. That is why we are investing so much in those industries. However, the important lesson that all of us are learning is that we need a pipeline of crops, because we are experiencing changing market and environmental conditions. We need to find alternatives. We need to be flexible and respond to changing demand. We need to take advantage of the opportunities that we can get from moving from downstream processing to producing. To respond to Hon Colin Tincknell, one day we might all be fabulously gowned in Western Australian hemp fibre. All those industries are important. I think we are all on the same page about how we see this industry progressing.

A number of members have talked about the issue of risk. The problem is that it is very hard to control the hemp seed to such an extent that we can safely predict that the vegetation will come in at under 0.35 per cent THC. Therefore, the risk is that the farmer will lose the entire crop. This bill will not only enable a greater variety of seeds to be used, but will also de-risk the whole process, even with the current varieties that are being experimented with.

I will very quickly turn to some of the issues raised by Hon Simon O'Brien. He has quite rightly raised some interesting issues. As a matter of interest, I got some data on the tetrahydrocannabinol level in the stuff that other people the member knew when he was young—not him—might have once smoked.

**Hon Simon O'Brien:** Hypothetically!

**Hon ALANNAH MacTIERNAN:** Based on the product collected by New South Wales police in various raids, approximately half of the illicitly used substances had a THC level of over 15 per cent and approximately three-quarters had a level of over 10 per cent, so someone would have to smoke an entire garbage bag full of this stuff. The THC levels that excite the psychotropic reaction are much greater. The member raised an interesting question about the other cannabinoids, because there are other cannabinoids that are not psychotropic. As he quite rightly pointed out, we have not necessarily seen the real potential of this area and the possibility of those cannabinoids being very useful.

Debate interrupted, pursuant to standing orders.

[Continued on page 4846.]