

4th Australian Industrial Hemp Conference
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The Australian hemp industry has had its ups and downs over the last 20 years and in particular the last 5 years relating to the extract and food sectors.

There have been some vital developments, particularly within the hemp fibre industry over the last 2 years; the rate of change throughout our industry is gaining momentum and we need to be prepared. We are on the cusp of monumental expansion that may propel the Australian hemp industry well into the lead of global innovation and market development.

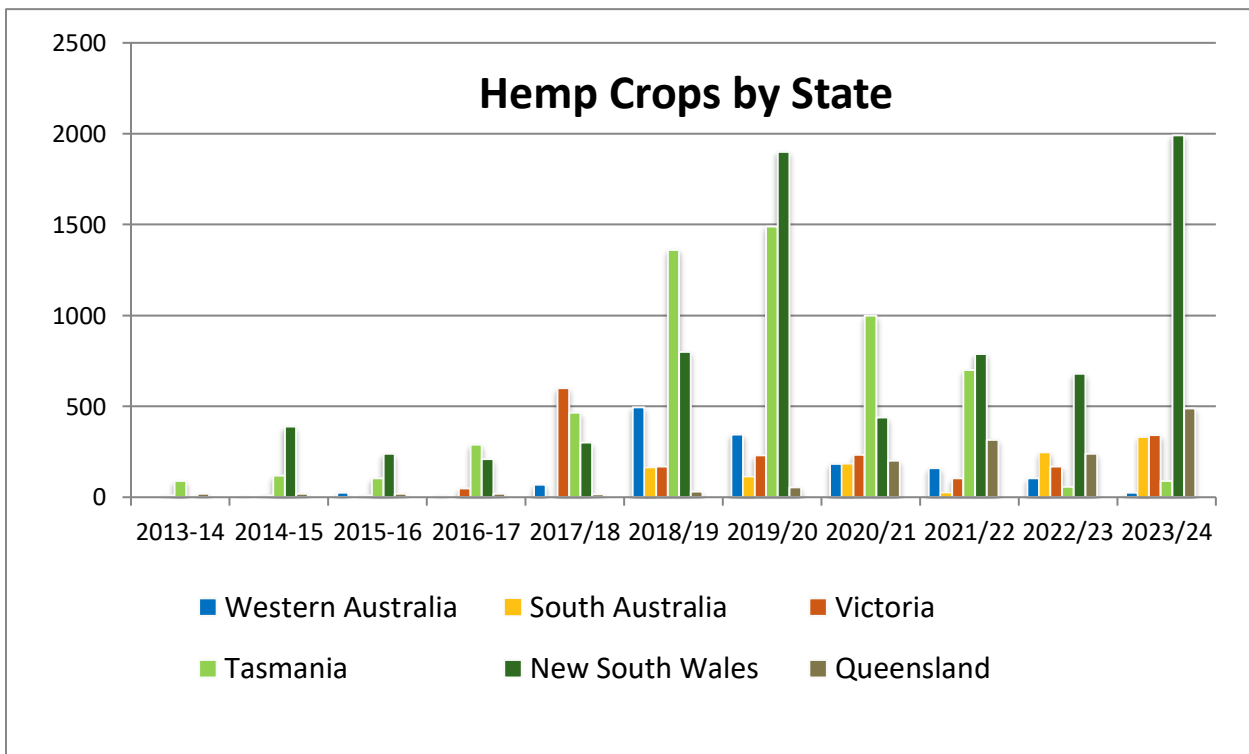
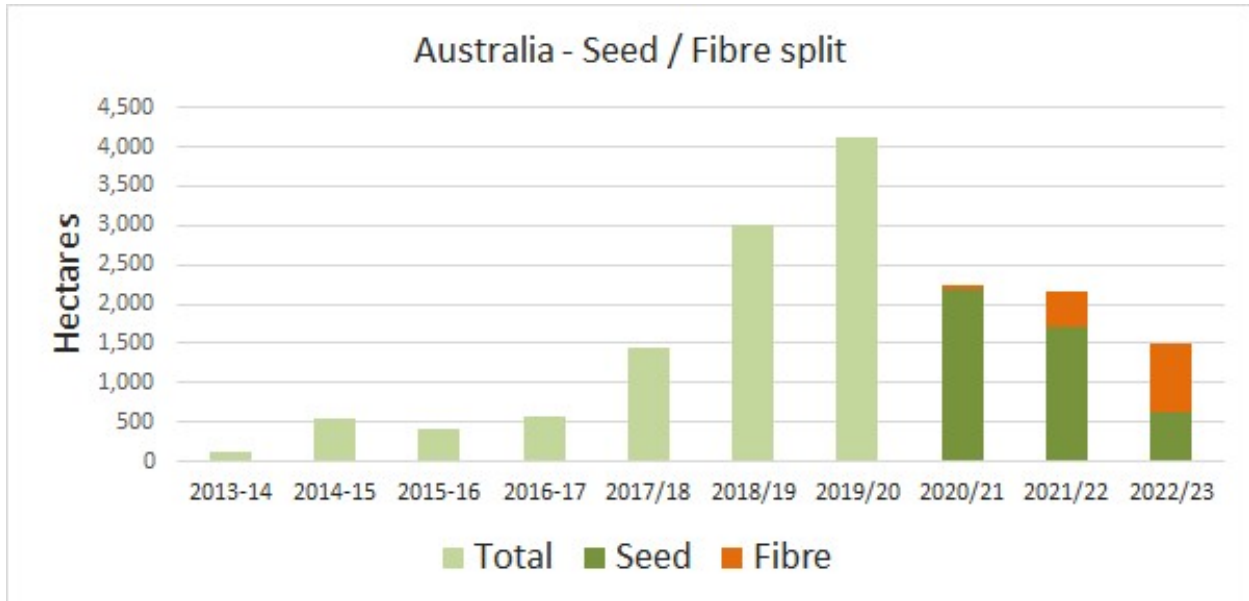
I would like to make clear a definition, which relates to the nomenclature we use to broaden the understanding of the hemp industry.

As many of you would know, we define hemp in Australia as cannabis with less than 1% thc, any cannabis with greater than 1% thc we refer to as marijuana. Using this term, rather than high thc cannabis, creates an instant understanding of the distinction, which helps grow the separation between the two sectors in the minds of the consumers and the community.

The Australian hemp industry, has had its ups and downs. Over the last four years a significant increase in fibre crop plantings from 3% of the crop in 20/21 to 48% of the crop this past season. We've observed roughly a doubling of overall planted area in the last 12 months to 3,200ha, which includes a 180% increase in fibre area being from 858 ha to 1,564 ha.

With conservative estimates in yield and pricing, this places the fibre industry at a value of \$5.4M and seed at \$5M, thus a total of \$10.4M exceeding Agrifutures projection by 2 years.

I expect that next season there may be another jump in area, perhaps even another 2,000ha as a result of further demand for fibre crop offtakes, bringing the total estimated crop for next season to 5,000 ha. Most of this development is occurring in SA, Vic and NSW.



There seems to be political momentum for the industry developing; the AHC has been involved with state legislative reviews including NSW, Vic and Tasmania. The NSW government is now the most supportive and proactive, reflected in the recent regulatory change allowing the extraction of non-medicinal elements from the hemp leaf, and the establishment of an industry task force to determine how the industry can be effectively supported, in which the AHC is very much involved. As a result of this change, we already have a European company investing into specialised hemp production in NSW.

Soon there will be a bill in support of the hemp industry presented for review in the Victorian parliament as a result of an industry enquiry, where the AHC and Regenerative Hemp Victoria had significant input. A catalyst for this were the changes and restrictions placed upon the Victorian forestry industry, which is a reflection of an overall global trend which is creating significant opportunities for the hemp industry.

The Tasmanian government is allowing a pilot scheme for the utilisation of hemp stubble as a mulch in the horticultural industries, one of a number of outcomes from their recent industry review. This is a great step towards bringing hemp into mainstream applications and adding value for growers.

I'm sorry to say that in WA where I recently visited, the state government has let support for the industry fall away, I know that growers and processors over there are feeling abandoned by their government. Also, the season in WA has been unusually dry thus discouraging hemp growers from planting.

In QLD, there is also poor support for the industry, there is still no dedicated hemp legislation, with hemp laws sitting under the *Drugs Misuse Act*. The AHC has been consulted by the QLD premier's office, unfortunately since then, the premier has been replaced and we have not seen any encouraging signs of change. This year NSW, at the suggestion of the AHC, was able to assist a QLD hemp business which was been prevented from planting a crop in QLD due to inflexible regulations. Growers have to fork out \$1,500 for a hemp licence and pay travel costs of \$180/hour to have someone to come and take crop samples. In comparison, none of these charges apply to growers in Tasmania.

In South Australia there are significant proposals being pursued which includes government support for the housing industry which are looking promising. There has been some good seed yields of up to 2t/ha, which has surpassed this year's yields in Tasmania where the crop has shrunk to 90ha from a high of 1,500 ha in 2019/20 season.

At the federal political level, we have robust support for the industry across the political spectrum. The AHC has been given an undertaking for the launch of a senate inquiry into the hemp industry and we have been offered access to certain parliamentary lawmakers to explain the legislative changes the industry requires to allow Australian farmers to take full advantage of the opportunities not yet available from hemp.

A little about the AHC.

The AHC was formed in June 2020, it is a 7 member organisation where each member represents a state association and the Northern Territory.

The AHC is a primarily grower and processor driven-and-funded organisation, focusing on addressing issues impacting the industry whilst engaging with Government and community. The members of the council are working to drive policies that will foster productivity of the Australian Hemp Industry with a specific focus on improving the industry's capacity to compete at a global level, thus ensuring long term sustainability of a profitable industry

We are pleased to say we have brought structure and recognition to the industry, having facilitated the establishment and collation of grower/processor associations in all states and the Northern Territory.

If you are interested in Australian hemp industry developments, then you should subscribe to our report through our website. Also, we are interested in contributions from those in the industry that we can include in our monthly report.

Following are our six key objectives:

- 1 Communication, industry integrity standards and marketing
- 2 Crop chemical permit applications
- 3 Guidance to national research
- 4 Documentation of industry trends
- 5 Lobbying of state and federal governments
- 6 Setting of seed certification rules

Some of our achievements include:

- Establishment of effective state networks
- Establishment of industry specific groups
- Collaboration with Agrifutures – BMP & Strategic Plan and research initiatives
- Industry communication

- Progressing work with the APVMA
- Ensuring the success of the \$8M industry crc-p research project as a project partner.

The AHC has enacted a strategy of creating industry groups under the headings of Food, Fibre, Fodder, Extracts, Carbon and Agronomy. Each of these groups will feed into two committees:

First - A research guiding committee tasked to ensure national research institutions are investing effectively into hemp industry projects and assisting with industry research collaboration.

Second – A legislative action committee tasked with designing a proposed federal regulatory framework that will open opportunities for Australian farmers and processors based on whole of plant use. Along with a business case to show that within 10 years Australia could well have a \$500,000,000 hemp industry established and growing.

The AHC groups are open to all stakeholders and meet around once a quarter.

FOOD

Our Food group is headed by Mick Andersen from South Australia. The group has defined its objective:

To support the AHC to develop and expand a strong Australian hemp food sector and promote Australian grown and produced hemp foods to domestic and overseas markets, with an emphasis on consumer and industry education, food safety and quality. To become an informed, respected and used resource for hemp food regulators.

Since it was made legal in Australia to sell hemp as food in November 2017, the Australian industry has had a surge then slump in growing areas. For instance in Tasmania we hit a peak 4 years ago of 1,400 ha to this season where only 24ha was planted for seed production. Since this contraction in planting, hemp food sales have continued to grow around 20% per annum. Also there has been significant consolidation of the industry, where Hemp Foods Australia (an Elixinol company) has purchased Australian Primary Hemp and Ananda Foods, making them the dominant hemp food company in Australia by far. I am aware of only 4 other hemp food production companies in Australia, when 5 years ago there were at least 11.

The AHC food group has identified key issues to address, being Research, regulation and marketing. We will be joining the Australian Oilseeds Federation and document industry hemp standards for ratification which is important for market development and fostering of consumer confidence. The setting of industry standards will ensure the quality of the locally grown

produce to help combat cheap and inferior imports. The Food Group will also look at developing a national marketing initiative with support from all food industry businesses.

FODDER

Our Fodder group is headed by Dr Bronwyn Blake from Western Australia, Bronwyn has been conducting groundbreaking research on feeding livestock hemp fodder and as you would have learnt, made some sound progress in securing market access for hemp producers totalling to around \$8M. This relates to the oil and by product market for animals.

The Groups objective is:

To support the AHC on advocating hemp and its derivatives as a feed for livestock and companion animals.

We are very lucky to have Bronwyn managing this important issue for the industry and she is doing a fantastic job. On the executive is Seleena Sylvester who is also doing research into horses and hemp by products in NSW, which will have a positive impact in building access to lucrative markets for the hemp industry.

FIBRE

Our fibre group is chaired by Bob Doyle. Key issues to be addressed are:

Establishment of product standards, IP protection, research and marketing. Also acknowledged was the importance of collaboration in product and market development, where the group will be investigating co-op proposals that would be aimed at securing the supply chain to market.

Winter 18 months ago I took a trip from Tasmania to Darwin, searching out hemp projects. To my amazement there were several multimillion-dollar projects being established, and most of the proponents were unaware of each other's activities. The industry was well and truly working in silos.

To help raise the profile of the industry and promote communication, knowledge and collaboration, the AHC held a national fibre forum in Geelong at Deakin University. We had almost 100 delegates attend and learn about 4 major fibre hub proposals across eastern Australia where there is potential for many thousands of hectares of hemp required.

We now know of around 11 decorticators that can operate in Australia, whereas 5 years ago there were only 2. Since the fibre forum we have Vicura and Southern Fibre setting up fibre hubs in South Australia. Renning Farming has a decorticator operating in southern NSW and

recently harvested 1,000 ha with the help of Gavin Hopkins and Ian Wise using their uniquely designed fibre harvesting equipment. These crops were yielding between 16t to 20t per hectare, which are very lucrative yields for growers, I've been informed that 15t/ha is a yield that provides equivalent returns to cotton gross margins.

Most of this material will end up at Hexcore, located near Melbourne, they can manufacture many different products from hemp, including hemp h bar as strong as steel. Right now, they have orders for 500,000 hemp pallets and more orders coming in to be supplied. The other exciting development with this company is the fire trial on a Hexcore hemp clad building, which has resulted in orders for fire resistant hemp buildings. The trial, which can be viewed on Instagram, was the application of fire to the building maintaining a temperature of 1023 deg for 10 minutes, the temperature in the building went from 27 deg to 30.2 deg. The hemp panels were 22ml thick and covered a wall of compressed straw. As Joorst Bakker said 'this is a game changer'. This means housing can be manufactured that has the ability to save lives in the notorious Australian bushfires

At the Carol Cotton Gin in central west NSW they have modified the obsolete gin facilities to decorticate hemp, when visiting a few months ago, I was amazed at how good the material was that they had processed. The most exciting aspect here is that fibre can be processed at 10t/hr, the infrastructure is already there, the grower base is already established (ie cotton growers) the logistics are in place and there are agronomic synergies in growing hemp in rotation to cotton. Recently Murray Industrial Hemp has called for investors to support a proposal combined with a government contribution for the establishment of a \$30M fibre hub in the Barham region on the Murray River, with a projected internal rate of return of 42%. This is designed to provide local economic stimulus while exploiting the sustainable aspects of hemp building.

A significant milestone recently achieved is the export of fibre to China and India by Gary Rogers and Georgina Wilkinson, this is an Australian first.

EXTRACTS

Ben McGorm is the chair of the AHC Extracts Group. In the last 5 years we have seen the cbd industry grow and contract significantly, with so much hype it seemed institutions were blindly investing into the industry. unfortunately, with the massive restrictions placed on the industry, the government is effectively choking cbd production in Australia We know that if growers were allowed to grow, process cbd on an open scale, we could have raw material product available at an extremely competitive rate, which has already been proven by NSW growers.

There are great opportunities for the hemp industry in utilising the flavonoids, terpenes and cannabinoids that have so many applications throughout the industrial and health sectors.

I would like to make the point here that I am talking about non thc products.

The Australian interpretation of the Singles Convention needs to be re-evaluated to account for the distinction between hemp and high thc cannabis. The purpose of the Singles Convention is to prevent the international illicit trade of dangerous drugs, the Convention was established in the 1960's before it was known about the non-psychoactive components of cannabis, of which, many have very beneficial uses. For example, CBD is no more dangerous than echinacea.

The AHC believes that farmers and processors should have unrestricted ability to grow and process hemp products. The greatest commercial gains can be made for the hemp industry through the extracts sector and can help improve commercial returns combined with other revenue streams from the plant.

I witnessed an example of this some years ago when I had the good fortune to inspect the HempFlax operations in Romania with Mark Reinders. Mark and the John Deere company had worked together to design and produce the very first double cut harvester. This header could harvest and separate leaf material, seed and fibre, where each component could be processed and add multiple revenue streams to the grower's bottom line. This has not been possible in Australia until very recently. To their credit, the NSW government has modified their legislation to allow the extraction of non-medicinal resins from industrial hemp. At least in NSW there is now an opportunity to improve fibre production viability with additional revenue generated by resin extraction from the fibre crop leaf material

CARBON

Lauchlan Grout is chair of the AHC carbon group.

It is well acknowledged that hemp is a great carbon sequester, superior to that of forestry with a great deal of potential in the building sector.

The key task of this group is to encourage the establishment of a carbon credit system that can add further value to the hemp industry. We have already seen one organisation establish the methodology for a carbon credit system, which is yet to be approved. I understand that the carbon locked up by timber is not yet accounted for in the carbon credit system, this has to occur before the same can apply to the hemp industry.

There are two aspects of carbon sequestration to be established and certified. One is where the soil sequestration benefits are accounted for and the other is in long term lock up scenarios, such as Hexcore pallets and buildings. Once established, this will be another fantastic point of value for farmers.

Another aspect to carbon is the production of biochar, which I understand can attract carbon credits. In Northern NSW there is research being conducted to show how hemp biochar, mixed with stockfeed, can reduce methane emissions cheaply and effectively.

And finally, hemp may well have a place in bioenergy production, once practical systems can be developed and commercialised.

AGRONOMY

Rob Eccles is chair of the AHC Agronomy group. This group has the task of reviewing agronomic developments in the hemp industry and provide advice and guidance for agronomic research initiatives. The AHC has previously commissioned agronomic research relating to crop chemical trials, which Rob project managed. This work has provided solid outcomes in weed control in the hemp industry. The AHC also uses the expertise of the agronomy group to support hemp growers when learning new skills in the growing of hemp crops.

Challenges

Some challenges we have before us include:

Lack of industry unity.

Lack of support and confidence evident with institutional finance providers

Lack of government support and in some cases obstruction.

Need for massive capital investment and market development

Need for research and technological development, particularly in processing.

Need for product standards, both with end products and raw materials

Growers and processors in many cases haven't got a clear idea of how raw material needs to be produced and presented for processing.

A lack of connection and expertise between production, processing and markets.

Opportunities

Industry opportunities have become evident in how our fibre investment patterns have changed. Figures collated by the AHC have shown that over the last 3 years we can account for around \$52M having been invested into the Australian hemp fibre industry, yet projected investment levels over the next 2 years are a whopping \$195M.

Aspects of sustainable farming, carbon sequestration and sustainable products, driven by policies relating to climate change have the Australian hemp industry positioned well for the future.

CONCLUSION

It is no doubt a huge task to bring maximum value to our hemp industry through addressing the five sectors, being food fibre fodder extracts and carbon. It is a global struggle and the issues needed to be addressed are common throughout the world. Whichever country can create the best environment for hemp industry development will be the one that will be the global leader, this is what the AHC is looking to facilitate.

Throughout all these sectors there are four key elements, which properly addressed can bring about a profound change for the better for our industry.

1. Industry Unity
2. Regulatory reform
3. Dedicated research
4. Education

The AHC is successfully harnessing the raw passion many of us have for this industry. We are making gains, but have a long way to go.

My message as always, is that only by working together can we achieve the outcomes we so much desire.

Make no mistake, we are moving the dial on this industry, but we need your help and support, so join your state association and let's get this thing done.

Tim Schmidt
President



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