Australian Government

Rural Industries Research and Development Corporation

European Industrial Hemp Association (EIHA) annual conference

Heurth, Germany
17th – 18th November 2004

A travel report for the Rural Industries Research and Development Corporation

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i) A Travel Report presented to RIRDC

This travel was undertaken by Philip Warner, Managing Director of Ecofibre Industries Limited, (formerly Australian Hemp Resource and Manufacture (AHRM)), to attend the European Industrial Hemp Association (EIHA) annual conference in Heurth, Germany 17^{th} – 18^{th} November 2004.

ii) Summary

This report covers the recent travel of Philip Warner of Ecofibre Industries Limited (EIL) to the EIHA Conference in Heurth, Germany 17th & 18th of November 2004. Prior and post the EIHA conference, the trip took in meetings with organizations that related to other aspects of the Hemp Industry in Japan, Germany, France, UK and Singapore. Attendance at the EIHA conference was a follow up to the same conference attended by EIL in 2003 where EIL made a presentation on "The Future of Hemp in the Southern Hemisphere".

Attendance at the conference was important for EIL to maintain an international presence in hemp development and to keep abreast of current research and industry trends. Renewing contacts with internationally known hemp industry practitioners was also an important outcome of the travel to the conference. The international attendance was significant with representatives from most continents, however, absent from the conference were entities from Eastern Europe and South Africa. The conference proceedings are available online by registering at the Nova Institute website: www.nova-institut.de.

The conference offered a combination of proposals for innovative directions to the hemp industry and ongoing discussion on traditional processing and plant development work and the announcement of new products. The impression one gained of the industry at the conference was that the industry was moving forward in commercially viable sectors but was severely limited by lack of supply of raw material, inefficient processing technologies, lack of international standards and lack of investment capital. The industry had passed its phase of previous speculative claims and opportunities and seemed to be focused on the higher value commodities of technical fibres, generic cellulose, seed oil and food. It also appeared that the wishful dreamers had been weeded out and only commercially focused industrial or manufacturing participants attended the conference.

In general, the level of production had increased over the last year and more markets were seeking hemp fibre. Equipment manufacturers had developed new processes that better used the technical aspects of hemp fibre, creating cost savings for manufacturers by having better calibrated equipment to achieve more effective fibre blends. The use of hemp fibre in injection molded plastic products had achieved both higher than expected strength/weight properties and was now poised for commercial reality.

Australia's position as a progressive and active participant in international hemp was strengthened by simply being there. There is significant interest in there being a potential supply source of raw commodity fibres from the Southern Hemisphere in the future where it is perceived fibre can be produced for a significantly lower cost than in Europe. The subsequent discussions with researchers, farmers, processors, product manufacturers and equipment manufacturers would indicate that Australia could feasibly become a dominant player in the global hemp stage if it could begin large scale production to fill the price sensitive demand.

The recommendations from this report is that the Australian scientific and political institutions and Government Departments (Trade and Industry) take a forward Global View of the looming demand for new fibre use and implement "whole of industry strategies" to enable a completely new and full value chain to develop in Regional Australia.

iii) Broad Itinerary Outline:

Trip began 15th November arriving back in Brisbane PM 30th November.

Mon	Nov 15	Arrive Tokyo, Meet Austrade	Meet Japan Enviro Products (JEP)
Tues	16	Depart Tokyo to Frankfurt-Berlin	Arrive Berlin
Wed	17	Meet Potsdam Institute	Dept Berlin for Cologne
Thurs	18	EIHA Conference, Heurth	
Fri	19	EIHA Conference	
Sat	20	Meet Van Dommel Equipment	Dept Cologne -Frankfurt Depart Frankfurt - Paris
Sun	21	OFF	
Mon	22	Travel Bar su l'Aube Meet LCDA France	Meet AFT Plastique
Tues	23	Return Paris	
Wed	24	Meet Pierre Bulloc Former LCDA CEO	
Thurs	25	Travel London	
Fri	26	Meet Norman Sinclair, Sustainable Projects Development Group	
Sat	27	Dept London-	- Frankfurt-Singapore
Sun	28		Arrive Singapore
Mon	29	Meet Singapore Turf Club Meet Distributor Meet Austrade	
Tues	30	Dept Singapore - Brisbane	Arrive Brisbane

iv) A report of the travel including:

- an explanation of the primary purpose of the travel
- major achievements / findings of the travel
- benefits / significance to the grantee
- benefits / significance to the rural industry
- recommendations to RIRDC and industry arising from the report

The primary purpose of the travel

Attendance at the conference was important for EIL to maintain an international presence in hemp development, to renew contacts and keep abreast of current research and industry trends. The conference proceedings are available online by registering at the Nova Institute website: www.nova-institut.de.

The conference offered a combination of a broad number of aspects relating to the existing industry as well as new proposals and activities; these presentations were an up-date across the entire value-chain - present production level, some techniques in primary production, manufacturer interest in the developing and inclusion of hemp fibre in new and old products as well as offering some solutions to industry problems.

In the main the conference gave a critical perspective of industry and it's challenges. It was relatively easy to see where and how the establishment of a new industry could avoid making the same mistakes as has occurred in Europe and North America over the last four years. It was particularly important from an Australian perspective to interpret the information and rationalize what was or wasn't relevant given that our Agricultural and Manufacturing and Market sectors are entirely different to those in Europe.

Other than an up-date on industry developments, meeting new and renewing old contacts, the primary purpose of the trip was to confirm that there was indeed the potential and opportunity for an Australian hemp industry by comparing it to that of Europe, Canada and recent developments in China.

Major Achievements / Findings

The European Position
European production is still on the increase. While this increase is in the order of 10%-20% in different product sectors, the limiting factor would appear to be the price of the raw commodity and the up-take by manufacturers. There has been little or no progress made in the raw commodity production sector (growing, raw material handling and processing) - instead progress has been made in product development and market penetration.

There was no effort to make better economies in primary production in order to create a downward change to the price of fibre. The European industry seemed resigned in having to seek and prove a higher technical product value to increase market demand and therefore production and profitability. However, the problem still remains that a significant increase in hemp production will only happen when manufacturers see that industry has the capacity to supply greater volumes at a lower price. While advancements in proving that hemp commodity as a quality product is important, it will still have to compete with cheaper, lower quality fibres for the short and medium term until those attributes can be taken advantage of by manufacturers.

One area overlooked by the European industry is the handling of unprocessed material from field to mill, which accounted for almost 15-20% of the total production cost (95 Euros/ton). While there are a few companies attempting to come up with new systems to reduce this cost the European climate, size of land holding and expense in transport and storage capacity are insurmountable and it is unlikely to see savings in this sector of more than 3-5% of the overall price.

Processing throughput also seems to be another stagnant area of development that will become a problem when/if greater volumes of fibre are in demand. Throughput capacity has plateaued at average of 6 ton/hr and involves a very high labour amortization cost per ton.

The Australian Position

Given the above consideration, if Australia was able to produce raw fibres at a 30% lower price than in Europe, Hemp would compete very well with the other fibres and at the same time significantly increase it's market share. From our perspective this is definitely achievable as our production capacity, scales of economy and farm to factory handle systems are much more streamlined and efficient. While the European producer relies entirely on the double and triple handling of 250 kg bales of unprocessed stalk, the recently developed Australian module system is able to deliver a 10-12 ton module of semi-processed material to the mill at $55 ton (30 Euros).

It is anticipated that the module system will achieve an even more economical processing throughput of 15 ton/hr or higher. If this throughput level was achieved the demand for hemp fibre (at the existing price 640 Euro/$1,250/ton), could see the commodity run into oversupply if Australia was to produce at that rate all year round. Therefore Australian production seriously needs to a) find a lower price without effecting European industry, b) sell into a different market such as Japan, c) or wait for a substantial new use demand. It is important the Australia industry monitor closely the new European and Nth American manufacturing trends for this reason.

It is not likely that Australia will be at the forefront of new product development; realistically Australia is 10 years behind in manufacturing technology and therefore demands. Conversely our raw material production capacity and technology is in advance of Europe. Therefore one would consider that providing there is ongoing European manufacturing, product and marketing advancements being made, an Australian industry could benefit from not creating an imbalance in that market in the medium term and focus on regions such as Japan or advanced domestic manufacturers.

Benefits / Significance to grantee

As above, the understanding of the European hemp industry and the positions of its components, conceptually and practically, is an important outcome for EIL. The beneficial outcomes, broadly, are:

- to maintain contact with the international hemp community and forge new partnerships and opportunities for use in the Asian Pacific area
- to enable EIL to more specifically direct its R & D and market activities to areas most relevant
- to gain the feedback of the international hemp community with regards Australia's direction
- to help focus marketing effort for hemp and allied crops
- to explore new collaborative opportunities
- to maintain EIL's reputation in the international community as the most progressive operator in tropical and subtropical industrial hemp
- to engage with new processing technologies that could be applied to other bast crops

Benefits / significance to the rural industry

Australia, although an agronomically capable region in terms of hemp industry development, lacks both the political will to further hemp in this country and the venture capital necessary to make the industry a reality. The presence of EIL raises the profile of southern hemisphere hemp development and commensurately, its potential to attract both global markets and international investment.

Importantly, manufacturers in Europe become aware that there is potentially a supply of fibre from places such as Australia and potentially at a lower price than presently achieved in Europe or North America.

Recommendations to RIRDC and industry arising from the report

The recommendations from this report is that the Australian scientific and political institutions and Government Departments (Trade and Industry) take a forward Global View of the looming demand for new fibre use and implement "whole of industry strategies" to enable a completely new and full value chain to develop in Regional Australia.

The critical issue now facing the hemp industry is to ensure that it is able to meet industry specifications and viability parameters for production. Therefore this report recommends:

- That somehow a climate of long term planning be adopted in both government and capital investment for the benefit of Australia at large.

- That Austrade take a new position in understanding Global market trends and needs by looking for what the world needs rather than only looking for markets for products we already produce.

♦ That industry be proactive in seeking to understand the product, market and environmental benefits of hemp materials. Environmental regulations will come in to place in Australia as they have in Europe and an industry that is prepared for these changes will be advantaged.

♦ That the politicians accept that rural Australia is urgently seeking alternative crops and products and there is need to "pump-prime" completely new industries where entire value chains must be built and not just hope they evolve at the behest of large corporate interests.

♦ That Australia is potentially in a good position to capitalise on the interest of the international hemp R & D community as it perceives opportunities for Australian hemp companies. If this is not acted upon, the international opportunities will be lost and found elsewhere.

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