

# CONFERENCE/TRIP REPORT

## PRODUCTION, PROCESSING AND USE OF NATURAL FIBRES

SEPT 10 & 11, 2002

at

UNIVERSITY OF POTSDAM, GERMANY

*Hosted by*

INSTITUTE FOR AGRICULTURAL TECHNOLOGY, BORNIM (ATB)

By

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**Duration of Trip:** September 7 to 16<sup>th</sup>.

**September 7-9:** Travel to Potsdam, Germany and get settled.

**September 9, 7pm:** Official conference reception. Meeting of Program Committee. I was one of 10 program committee members for this international conference.

**September 10 & 11:** The conference consisted of 46 oral papers and 16 posters. My paper was "Industrial Hemp Fibre Research, Production, Processing and Marketing Initiatives in Ontario, Quebec and Eastern Canada". My poster presentation was "Flax Fibre Research, Production, Processing and Marketing Initiatives In Ontario and Quebec Canada". About 160 people were registered and attended. There were 2 from Alberta, 3 from Saskatoon, myself from Ontario and one person from USDA, South Carolina, USA. The rest were from Europe, Asia and Africa. This was an excellent international conference. There were many valuable papers on processing and manufacturing. The abstracts of papers are published in a **Book of Abstracts** and the actual papers are on **CD**. I have copies of both.

The **ATB** demonstrated its prototype fibre separation line. This line is based on a large round bale opener, separator, cutter, fibre separator and cleaner. The fibre separation is based on a hammer mill system but differs from others by drawing the bast fibres from the hammer mill chamber via vacuum and the shives going through the screen. The length of actual fibres is determined by the adjustment of the cutter. This prototype has the through put capacity of 1 tonne/hour. A full scale commercial model is under construction for a 3 tonne/hour fibre through put. The advantages of this system are: 1. Efficient in energy demand; 2. Simple; 3. Fast; 4. Relatively inexpensive (< \$2 million); 5. Able to produce quality fibre for composite, building and insulation industry; 6. Able to process un-retted straw; 7. Able to process flax and hemp fibre. ATB is interested in considering construction of a promotional installation in Canada.

AKE-INNOTECK were there and presented their fibre separation system. Peter Dragla, Chuck Shom and myself visited this proto type installation and system two years ago. They now have a commercial line set up and in operation. They also have a 2 or three sickle bar (horizontally layered) harvester constructed and marketing it.

Demtec from Belgium attended but did not make a presentation of their fibre separation system. Geotex from France attended and made a presentation of its fibre separation system. I had lengthy conversations with both.

The unfortunate news at the conference was the bankruptcy of Vernaro, Germany (Fred Bohndick). This was the large (1,000 ha production) processing plant in Germany which several groups from Ontario had visited and Peter and I had visited 2 years ago. It is the “Cadillac” french fibre separation system and very expensive (\$8-9 million).

The bast fibre industry in Europe is changing fast. Cost of production and processing seems to be the difficulties the industry is facing as the EU is cutting back the subsidies. Eastern Europe fibre is coming into the growing market in Germany at a more competitive price than local fibre and is replacing local fibre.

**September 12:** Excursion by bus to: 1) the Flachshaus BmbH, Giesendorf. This was 200 km north from Berlin. This factory manufactured total natural fibre insulation mats for home and business installation. The natural fibres can be either flax or hemp. 2) Kranemann Gartenbaumaschinen, Bluecherhof. This was another 100 km north west. Kranemann manufactures all types of specialized harvesting equipment for horticulture. He has also designed and built the Bluecher hemp harvester (based on vertical drums). There is a new 4 drum harvester ready for 2003. This model will cut the heads and lay them into a separate swath for dual harvest. Kranemann is contracted to construct the first commercial ATB fibre separation line.

During the travel north of Berlin through the country side saw many clusters of wind mills generating electricity scattered across the country side. Clusters consisted of 10-12 wind mills and were located about every 50 km.

**September 13:** Spent the afternoon at the ATB institute and were given tour of the largest agricultural institute in Germany. Dr. Christian Fuerll was a very generous and gracious host.

**September 14:** Spent the day with Dr. Wayne Wasylciw, ARC, Edmonton, Alberta touring Potsdam.

**September 15:** Spent the afternoon and evening with Dr. Fritz Munder and his wife from ATB touring Potsdam and Berlin.

**September 16:** Returned home. Left Berlin at 9:30 am and was in Thunder Bay by 9:30 pm.

Renewed many professional contacts and established many new relationships. The value of this conference was its focus on fibre separation technologies and market development.