



Australian Government
**Cotton Research and
Development Corporation**

TRAVEL & CONFERENCE REPORT

Part 1 - Summary Details

Please use your TAB key to complete Parts 1 & 2.

CRDC Project Number: 01CRDC017

Project Title: 29th International Cotton Conference

Project Commencement Date: 29/3/2008 **Project Completion Date:** 06/4/2008

Research Program: Value Chain

Part 2 – Contact Details

Administrator: Heather Dixon

Organisation: CSIRO Textile and Fibre Technology

Postal Address: PO Box 21, Belmont, Vic 3216

Ph: 03 52464000 **Fax:** 03 52464057 **E-mail:** heather.dixon@csiro.au

Principal Researcher: René van der Sluijs

Organisation: CSIRO Textile and Fibre Technology

Postal Address: PO Box 21, Belmont, Vic 3216

Ph: 03 52464000 **Fax:** 03 52464057 **E-mail:** rene.vandersluijs@csiro.au

Supervisor: Stuart Gordon

Organisation: CSIRO Textile and Fibre Technology

Postal Address: PO Box 21, Belmont, Vic 3216

Ph: 03 52464000 **Fax:** 03 52464057 **E-mail:** stuart.gordon@csiro.au

Researcher 2 (Name & position of additional researcher or supervisor).

Organisation:

Postal Address:

Ph:

Fax:

E-mail:

Signature of Research Provider Representative: _____

Part 3 – Travel Report

(Maximum two pages)

1. A brief description of the purpose of the travel.

René van der Sluijs travelled to Bremen in April 2008 primarily to attend and present a paper at the 29th International Cotton Conference.

2. What were the:

- a) major findings and outcomes**
- b) other highlights**

(a) ITMF International Committee on Cotton Testing Methods(ICCTM)

Meetings attended by committee members and observers

- It is estimated that currently 30 to 40% of the worlds cotton is tested objectively using High Volume Instruments (HVI).Uster Technologies are the major supplier of HVI instruments with 2200 units installed to date, mainly in Asia with 400 units installed by Premier and 40 to 45 units installed by Lintronics now known as Cottlab.
- The average price for testing a sample at a classing facility world wide varies between \$US 1 to 4, averaging 2.25/sample.The USDA charge \$US 1.85 and in Australia the average price is \$AUD 1.75.
- A new ASTM Standard D7410 – 07 has been released entitled “The Standard Practice for Qualification Instruments for Cotton Marketing” and a further standard is in the pipeline for “Value Establishment of Calibration Cottons”.
- There has been a change to Pima calibration;
 - The Pima short/weak cotton will no longer be available for calibration and is substituted by Upland short/weak cotton.
- It was further noted that the Pima long/strong calibration cotton is difficult to obtain as this cotton is custom saw ginned as roller ginned cotton is not uniform enough.
- There are three different ways that HVI instruments can be calibrated and this can influence the results. Studies conducted by Rieter, confirms findings by the CCAA, that when using Upland short/weak and Pima long/strong cotton to calibrate HVI instruments can lead to an increase in Upland cotton strength values by 1 – 2 g/tex.
 - It was agreed that Instrument manufacturers will investigate the possibility that the cotton used to calibrate the instrument appears on the results sheet.
- There were major discussions regarding Moisture Measurement and the possibility of testing cotton in classing facilities without standard conditions. This would allow developing countries such as West Africa, where it is difficult to maintain standard conditions in the classing facilities, to specify their cottons by HVI. Uster Technologies showed that a moisture correction factor in their software can successfully correct test results for moisture level variations. The USDA was not in agreement with this as they argued that calibration cottons were moisture sensitive and that not all cottons have the same moisture equilibrium. A further point was that to maintain standard conditions in a classing facility is expensive and this may lead to all classing facilities not maintaining conditions.
- It was further shown that a drop in moisture of 0.5% can lead to a drop in strength of 2g/tex.
- The presence of 4.5% trash in a cotton sample can influence the colour grade of the sample as the Reflectance value will be reduced by 2.5.
- It was agreed that in order to answer the question “What is the relationship between HVI and AFIS short fibre measurements”, that the Sutter Webb

would need to be used to determine the reference point before this question can be answered.

- Preliminary discussions were held on changes in the measurements of short fibre content. Currently SFC is referred to as the % of fibres shorter than 12.7mm. Investigations are underway to change this to 16.5mm. A couple of papers highlighted the need for a better commercial measurement of fibre length distribution
- I was invited to join the ITMF committee and have also joined a number of ICCTM Task Forces looking at specific fibre properties.

(b) International Cotton Advisory Committee(ICAC) Commercial Standardization of Instrument Testing of Cotton (CSITC)

A comprehensive report will be submitted separately to the CRDC prepared jointly by Greg Parle and René van der Sluijs. Only a few points will be highlighted in this report.

Meetings attended by committee members and observers

- The number of classing facilities and instruments participating in the last 5 CSITC Round trials has remained constant and there is currently a drive to increase the number of participants.
- Names of the Round Trial participants will be published on the ICAC website <http://www.icac.org>
- Participants who wish to query their results can contact Axel Drieling for further explanation of results.
- There are five cottons used for the Round Trials, four are US cottons and 1 from India. Currently a bale from Brazil is being sourced and it was mentioned that a bale from Australia, Africa and CIS should also be sourced. It was agreed by the Australian contingent that a bale of Sicala 350B would be an ideal choice and this will be pursued further.
- Presentation by Geoff Naylor on the Cottonscan instrument well received but the committee stopped short of recommending the instrument.
- Feedback on project in West Africa which is financing the establishment and training of personnel for Regional Test Centres

(c) 29th International Cotton Conference

Over 600 delegates from 40 countries attended the conference.

- The Food and Agriculture Organization of the United Nations has declared 2009 as the 'International Year of Natural Fibres'
- There was a lot of discussion on sustainable and ethical (no child labour) cotton. A worrying trend seems to be that sustainable cotton is solely associated with organic cotton.
- Impetus GMBH & Co. showed that with a new method to detect DNA from fibres and cotton products they found that about 30 % of organic cotton is in fact genetically modified.
- A study by the ICAC in 2006/07 on the Cost of Production of Cotton by region has released the following information;
 - The average cost to produce a hectare of cotton is US\$717.
 - The average cost to produce a kilogram of seed cotton is US\$0.34.
 - The average cost to produce a kilogram of lint is US\$1.64.
 - In Australia the net cost/kg seed cotton is US\$0.19 and net cost/kg lint is US\$ 1.23.
- The Brazilian cotton industry has realised that in order for it to improve its quality it needs to work towards improving ginning equipment and practices.

This work is in essence very similar to the BMP for Ginning work conducted in Australia,

- The introduction of Bt cotton in India has led to a huge increase in yields (from 300 kg lint/ha in 2001 to 554 kg lint/ha in 2007). India is now the second largest producer after China and contributes 18 % to the world cotton production.
- The paper on 'The Market for Premium Australian Upland Cotton' was well received.
- ITMF have released the 2007 Contamination survey which shows that worldwide contamination remains at the 2005 level of 22 %. Good news is that the contamination in Australian cotton has dropped from 13 % in 2005 to 7% in 2007 and still remains one of the least contaminated cottons in the world.
- Uster Technologies introduced their prototype on – line measurement of fibre length in the gin system, which will eventually form part of the current Intelligin system.
- The paper on 'Cotton Fibre Linear Density and Maturity Measurement and Application' by Stuart Gordon and Geoff Naylor was well received.
- Studies since 1991 by Hohenstein Institute has shown that there are no traces of pesticides on raw cotton. Further information can be gained at: <http://www.baumwollboerse.de/index.php?l=2&n=16,0,0&PHPSESSID=cde668a7337b597c73efa8c195ff94e2>
- Classing reform is taking place in China, with the assistance of the USDA, at a tremendous rate. There are currently 213 HVI's installed in 87 classing facilities in China which class 6, 3 million bales ginned at 701 gins.

3. Detail the persons and institutions visited, giving full title, position details, location, duration of visit and purpose of visit to these people/places. (NB:- Please provide full names of institutions, not just acronyms.)

As well as attending the International Cotton Conference the following visit was made:

A tour of the Fibre Institute at the Bremen University was fascinating. This visit was to get an impression of the facilities and work conducted at the Institute.

**4. a) Are there any potential areas worth following up as a result of the travel?
b) Any relevance or possible impact on the Australian Cotton Industry?**

Attendance of the conference and the ITMF & CSITC working groups has been very beneficial in establishing and renewing acquaintances which may be beneficial in the future. The Australian industry is well represented and respected in the various industry forums which will be to the benefit of the industry as a whole.

5. How do you intend to share the knowledge you have gained with other people in the cotton industry?

As well as this report, much of the knowledge gained will feed directly into active projects at CTFT which will disseminate information through the normal project channels.