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Commercial Standardization of Instrument Testing of Cotton: Global Achievements of the Project

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CFC/ICAC/33 Final Seminar
January 18 and 19, 2012

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Content

- From the CSITC Task Force to the CSITC Project
- (Trade Rules)
- CSITC Round Trials
- (Extra Fine Round Trials)
- CSITC Guideline for Instrument Testing
- ICA Bremen Laboratory Certification
- (Technical Developments)
- CSITC Website and Online Database

FROM THE CSITC TASK FORCE TO THE CSITC PROJECT

ICAC CSITC Task Force

- The CSITC Task Force was formed in December 2003 under the auspices of the ICAC
- International members from cotton production, trading, processing, testing and research.
- Included project partners: Axel Drieling, Jean-Paul Gourlot
- Members from Africa:

Ms. Jolly Sabune, Managing Director
Cotton Development Organisation, Uganda
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Tel: (256-41)236-394

Mr. Ibrahim Malloum, Cotton Commercial Manager
Somdiaa, France
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ICAC CSITC Task Force

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- C S I T C
- Global Aims
  - →Facilitate the adoption of standardized instrument testing as a basis for cotton quality evaluation and trading
  - →Facilitate the widespread use of standardized instrument testing systems at the producer level
  - →Uphold and improve the reliability of instrument testing by:
    - encouraging improvements in instruments
    - encouraging improvements in the operation of cotton testing facilities
  - →Facilitate the adoption of instrument testing standards and procedures as defined by the Universal Cotton Standards Agreement.
- During the project time, the CSITC cooperation structure was formed with fixing the structure, the aims, the tasks and duties.

Benefits of Instrument Testing for the Cotton Production in Africa

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- High Volume Testing will enable cotton producing countries in Africa to sell their cotton based on reliable and comparable test results
  - Offer cotton with known quality
  - Avoid price discounts due to unknown properties
  - Avoid claims
  - Secure/improve the market share
  - Use of the test results in the whole textile value added chain
  - Monetary benefit regarding higher achievable prices: approx. 3 US-ct for each kg of lint

CFC/EU – ICAC Project: CSITC

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Based on the recommendations of the CSITC Task Force, and to facilitate the work that is necessary to fulfil the CSITC objectives, a project was created:

<u>Commercial Standardization of Instrument Testing of Cotton for the Cotton Producing Developing Countries in Africa</u>

CFC/ICAC/33

→ To assist developing countries to meet the requirements of standardized and harmonized instrument testing, so that they are not at a disadvantage

→ For supporting the global aims *TOPIC OF THIS PRESENTATION*

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TRADE RULES

Adaption of Trade Rules to Instrument Testing

- In interrelation with the Project, the Bremen Cotton Exchange (BBB) included all CSITC Task Force approved test parameters as options in their procedures for trading.
- The International Cotton Association (ICA) included two instrument testing parameters (Mic and Strength).
- The Gdynia Cotton Exchange is currently developing trade rules that include CSITC instrument test results as basis for contracts.
- Other Cotton Associations are taking similar steps.
- ICA Bremen (a joint venture between ICA and BBB) is developing an ICA Laboratory Certification for certifying laboratories that are suitable for resolving quality disputes.
- The necessary ICA-Certification will be included as a prerequisite in the ICA Trade Rules.

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THE CSITC ROUND TRIALS

Aims of the CSITC Round Trial

Aims of the CSITC Round Trial

1. Evaluation of the test methods / test result variation → Improvement
   - Within-instrument variation
   - Inter-instrument variation
   - Possible additions as the variations between instrument types etc.
2. Rating of the participating laboratories, based on the accuracy of the results
3. Detailed analysis of laboratory results to achieve more accurate results, based on accuracy and precision

CSITC Round Trial Realization

Realization

- Headed by the International Cotton Advisory Committee (ICAC)
- Realization in cooperation between the Fibre Institute Bremen (FIBRE) and USDA-AMS
- Financially supported by the CFC/ICAC/33 project (co-funded by the European Union and the Common Fund for Commodities) up to 2011
- From Jan 2012 on financed solely by participation fees

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Cotton Round Trials in Comparison

Attribute	USDA HVI Checktest	Bremen Round Trial	CSITC Round Trial
Number of participants	50 to 80 HV instr.	130 to 150 HV instr.	110 registered labs (2011) 115-137 HV instr. (2011)
Kinds of instruments	Restricted to High Volume Testing	Every kind of Testing instrument	Restricted to High Volume Testing
Cottons: Origin and type	USA; Upland	World; broad range of prop.	4 US Upland; 1 international
Costs	Annual fee	Free of charge	Annual fee: 2012: 1000 USD
Frequency	12 times/year each 2 samples	3 times/year each 1 sample	4 times/year each 5 samples
Number of tests per sample	Asked for 12 tests per sample	Proposed: 6 tests per sample	30 tests per sample (fixed)
Aim	Information for the laboratory	Information for the laboratory	Official laboratory evaluation and detailed analysis for the laboratory
Evaluation of	Laboratory average	Laboratory average	Laboratory average and all single data
Evaluation of	Trueness only	Trueness only	Trueness and precision
Additional benefit			Calibration Material delivered with the RT samples (starting 2012)

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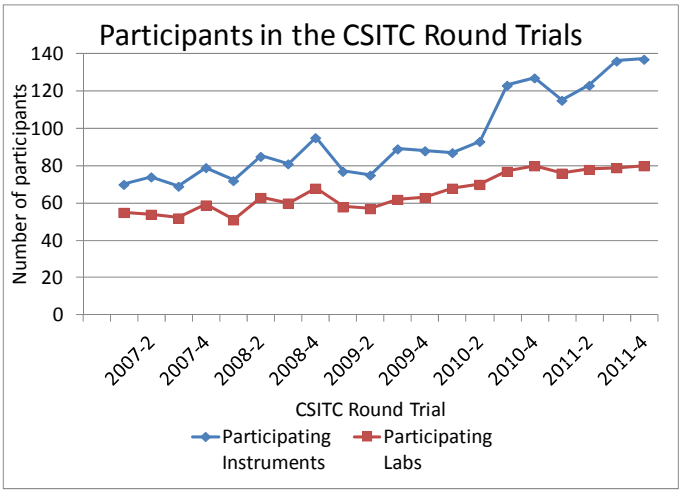
CSITC RT Participants



Registered participant laboratories 2011

•Asia	36
•South America	22
•North America	19
•Europe	16
•Africa	13
•Australia	4

Countries with highest no. of registered labs

- •Brazil
- •USA
- •India
- •Uzbekistan

Publication of Participating Labs on icac.org and csitc.org

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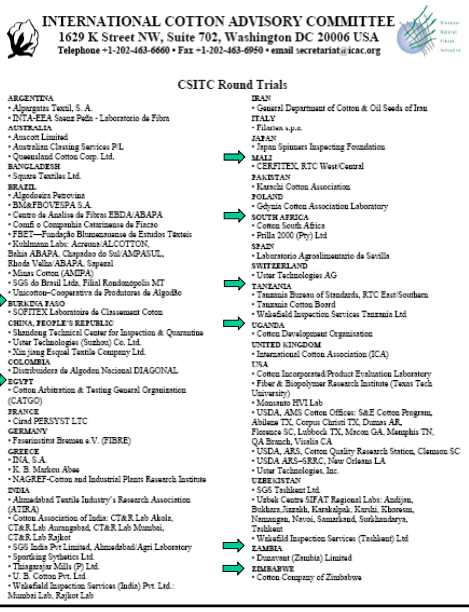

INTERNATIONAL COTTON ADVISORY COMMITTEE
1629 K Street NW, Suite 702, Washington DC 20006 USA
Telephone +1-202-463-6660 • Fax +1-202-463-6950 • email secretariat@icac.org

CSITC Round Trials

ARGENTINA
• Algargentia Textil, S. A.
• INTA-EEA Sosnz Pedn - Laboratorio de Fibra
AUSTRALIA
• Auscott Limited
• Australian Classing Services P/L
• Queensland Cotton Corp. Ltd.
BANGLADESH
• Square Textiles Ltd.
BRAZIL
• Algodoeira Petrovina
• BM&FBOVESPA S.A.
• Centro de Analise de Fibras EBDA/ABAPA
• Comfi o Companhia Cotonicultura da Fiscno
• FBET—Fundação Blumenauense de Estudos Têxteis
• Rohlmann Labs: Acreuna/ALCOTTON,
Bahia ABAPA, Chapadao do Sul/AMPASUL,
Rhoda Vicha/ABAPA, Sapezal
• Minas Cotton (AMPA)
• SGS do Brasil Ltda. Filial Rondonopolis MT
• Unicotton–Cooperativa de Produtores de Algodão
BURKINA FASO
• SOFITEX Laboratoire de Classement Coton
CHINA, PEOPLE'S REPUBLIC
• Shandong Technical Center for Inspection & Quarantine
• Uster Technologies (Suzhou) Co. Ltd.
• Xin jiang Esquel Textile Company Ltd.
COLOMBIA
• Distribuidora de Algodon Nacional DIAGONAL
EGYPT
• Cotton Arbitration & Testing General Organization
(CATGO)
FRANCE
• Cirad PERSYST LTC
GERMANY
• Faserinstitut Bremen e.V. (FIBRE)
GREECE
• INA, S.A.
• K. B. Markou Abee
• NAGREF-Cotton and Industrial Plants Research Institute
INDIA
• Ahmedabad Textile Industry's Research Association
(ATIRA)
• Cotton Association of India: CT&R Lab Akola,
CT&R Lab Aurangabad, CT&R Lab Mumbai,
CT&R Lab Rajkot
• SGS India Pvt Limited, Ahmedabad/Agri Laboratory
• Sportking Synthetics Ltd.
• Thangavjar Mills (P) Ltd.
• U. B. Cotton Pvt. Ltd.
• Wakefield Inspection Services (India) Pvt. Ltd.:
Mumbai Lab, Rajkot Lab
IRAN
• General Department of Cotton & Oil Seeds of Iran
ITALY
• Filatura s.p.a.
JAPAN
• Japan Spinners Inspecting Foundation
MALI
• CERTITEX, RTC West/Central
PAKISTAN
• Karachi Cotton Association
POLAND
• Gebnin Cotton Association Laboratory
SOUTH AFRICA
• Cotton South Africa
• Prilla 2000 (Pty) Ltd
SPAIN
• Laboratorio Agroalimentario de Sevilla
SWITZERLAND
• Uster Technologies AG
TANZANIA
• Tanzania Bureau of Standards, RTC East/Southern
• Tanzania Cotton Board
• Wakefield Inspection Services Tanzania Ltd
UGANDA
• Cotton Development Organization
UNITED KINGDOM
• International Cotton Association (ICA)
USA
• Cotton Incorporated/Product Evaluation Laboratory
• Fiber & Biopolymer Research Institute (Texas Tech
University)
• Monsanto BVU Lab
• USDA, AMS Cotton Offices: S&E Cotton Program,
Abilene TX, Corpus Christi TX, Dumas AR,
Florence SC, Lubbock TX, Macon GA, Memphis TN,
QA Branch, Visalia CA
• USDA, ARS, Cotton Quality Research Station, Clemson SC
• USDA ARS–SRRC, New Orleans LA
• Uster Technologies, Inc.
UZBEKISTAN
• SGS Tashkent Ltd.
• Uzbek Centre SIFAT Regional Labs: Andijan,
Bukhara, Jizzakh, Karakalpak, Kurshi, Khorezm,
Namangan, Navoi, Samarkand, Surkhandarya,
Tashkent
• Wakefield Inspection Services (Tashkent) Ltd
ZAMBIA
• Dunavant (Zambia) Limited
ZIMBABWE
• Cotton Company of Zimbabwe

African Participation in CSITC RTs

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	2007	2008	2009	2010	2011
Labs	8	11	9	12	14
Instr. (paral.)	13	16	12	16	?
Countries	6	8	7	8	9
Countries	Benin Egypt South Afr. Tanzania Zambia Zimbabwe	Benin Egypt Kenya South Afr. Sudan Tanzania Zambia Zimbabwe	Egypt Mali South Afr. Tanzania Uganda Zambia Zimbabwe	Burkina Faso Egypt Mali South Africa Tanzania Uganda Zambia Zimbabwe	Burkina Faso Egypt Mali South Africa Sudan Tanzania Uganda Zambia Zimbabwe

Configuration of the CSITC RT

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	Cotton 1	Cotton 2	Cotton 3	Cotton 4		*Cotton 5*
day 1	6 tests	6 tests	6 tests	6 tests		*6 tests*
day 2	6 tests	6 tests	6 tests	6 tests		*6 tests*
day 3	6 tests	6 tests	6 tests	6 tests		*6 tests*
day 4	6 tests	6 tests	6 tests	6 tests		*6 tests*
day 5	6 tests	6 tests	6 tests	6 tests		*6 tests*
Sub Total	30 tests	30 tests	30 tests	30 tests		*30 tests*
Total	150 tests for each Round Trial					

Cotton 1 to cotton 4 for laboratory evaluation
- US origin
- Tested for homogeniety
- Upland cottons
- Saw ginned

Cotton 5 as option for other origins, ginning or different behaviour

Configuration of the CSITC RT

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- Fully evaluated characteristics
  - Micronaire
  - Strength
  - Length (UHML), Uniformity
  - Colour Rd, Colour +b
- Result variation only
  - Short Fibre Index
  - Maturity
  - Trash Area and Count

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1 – Evaluation of Test Result Variation: Explanation

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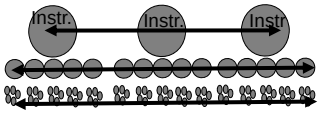
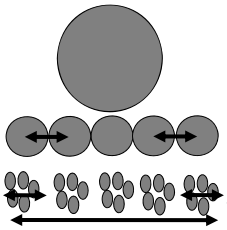
Inter-instrument Variation	Within-instrument Variation
SD interlab (30) based on 30 tests	SD within (days) between different days
SD interlab (6) based on 6 tests on 1 day	SD within (single tests) between single tests on 1 day
SD interlab (1) based on single tests	SD within (all tests) between all 30 tests





Laboratory / Instrument

Daily averages

Single test results

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Inter-Instrument Result Variation Parameters

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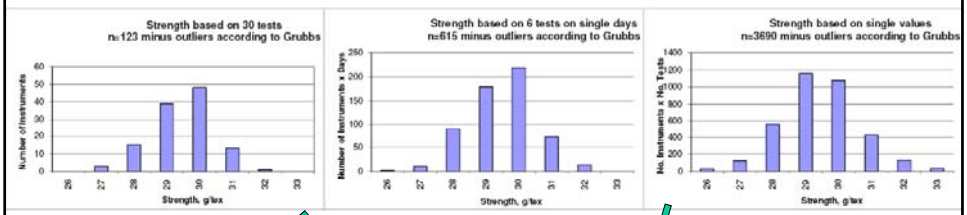

Inter-instrument distribution based on 30 test results (on 6 days) for each instrument

Inter-instrument distribution based on 6 test results (on 1 day) for each instrument

Inter-instrument distribution based on one single test results for each instrument

Strength								
			Cotton 1	Cotton 2	Cotton 3	Cotton 4	Average	*Cotton 5*
Average of Instruments (Grubbs)			29.494	27.681	25.760	33.514		31.881
Reference Values for Evaluation			29.494	27.681	25.760	33.514		31.881
Number Of Instruments			123	123	123	123	**123**	123
Inter-Instrument Variation	based on 30 tests	SD	0.915	0.968	1.236	1.020	**1.035**	0.997
		CV %	3.1	3.5	4.8	3.0	**3.6**	3.1
	based on 6 tests	SD	0.996	0.997	1.183	1.150	**1.081**	1.051
		CV %	3.4	3.6	4.6	3.4	**3.8**	3.3
	based on single tests	SD	1.169	1.157	1.303	1.322	**1.238**	1.199
		CV %	4.0	4.2	5.1	3.9	**4.3**	3.8

Inter-Instrument Result Variation: Micronaire

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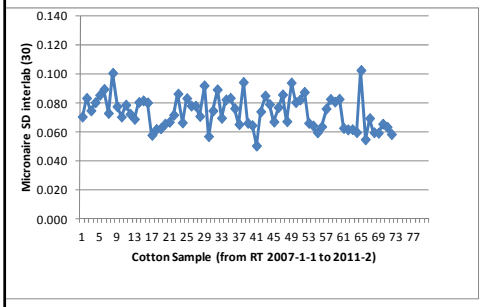
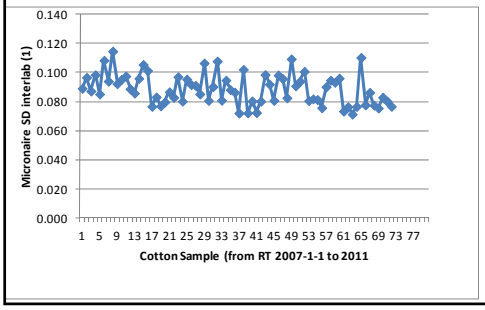


All results are based on 72 cottons,
US Upland,
Average: 90 High Volume Instruments

Micronaire
Average SD interlab (30) = 0.074
Trend: SD slightly decreasing



Micronaire
Average SD interlab (1) = 0.089
Trend: SD slightly decreasing

Inter-Instrument Result Variation Summary

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All results are based on 72 cottons from RT2007-1 to 2011-2,
restricted to US Upland,
Average: 90 High Volume Instruments per Round Trial

Property / Parameter	SD inter-instrument (30)	SD inter-instrument (1)	Trend from 2007 to 2011
Micronaire	0.074	0.089	Slight decrease
Strength, g/tex	1.06	1.30	Decrease→ Constant
UHML, Inches	0.012	0.017	Constant
Uniformity Index	0.53	0.82	Constant
Color Rd	1.09	1.15	Increase→Constant
Color +b	0.37	0.42	Increase→Constant

Decreases might come from learning process of the laboratories
Increases occur e.g. due to participation of new/more laboratories

Currently Achievable Improvements

How far will the SD be improved by only choosing the better 50%* of the laboratories?

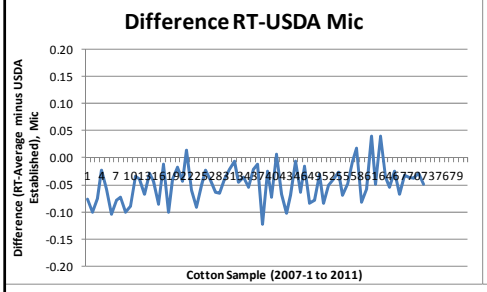
	SD inter-instrument (1)	
Property / Parameter	All laboratories	50%* best laboratories
Micronaire	0.092	0.074
Strength, g/tex	1.40	1.13
UHML, Inches	0.0171	0.0137
Uniformity Index	0.81	0.68
Color Rd	1.03	0.80
Color +b	0.38	0.29

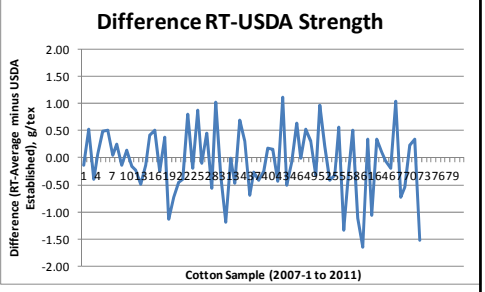
Possible reduction of SD interlab: approx. 20% for each property

Data based on CSITC RT 2007-1 to 2008-2 (24 cotton samples)
* 50% of the best labs were chosen based on their overall RT Evaluation in each RT

Comparison to USDA Established Results

By agreement, Inter-instrument averages are taken for comparison.
Another possible reference are the USDA Established Results.





Micronaire Difference:
Small / reducing

Strength Difference:
No systematic deviation:
in average ideally fitting

2 – Analysis of Each Instrument: Evaluation / Rating

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Performance of Laboratory 115

		Micronaire	Strength	Length	Uniformity	Color Rd	Color +b
Reference Values	Cotton 1	3,83	32,82	1,207	82,42	76,31	12,14
	Cotton 2	5,17	28,22	1,136	81,90	78,06	11,53
	Cotton 3	4,40	25,54	0,948	78,53	74,86	10,86
	Cotton 4	3,81	32,89	1,177	83,65	76,08	10,98
Laboratory Average of All Days	Cotton 1	3,80	33,62	1,207	82,71	75,37	11,38
	Cotton 2	5,23	28,50	1,134	81,44	76,05	10,82
	Cotton 3	4,36	26,11	0,969	76,13	73,62	10,41
	Cotton 4	3,79	32,72	1,182	83,83	75,29	10,17
Rel. Distance to Reference	Cotton 1	-0,03	0,80	0,000	0,29	-0,94	-0,76
	Cotton 2	0,06	0,28	-0,003	-0,46	-2,00	-0,71
	Cotton 3	-0,04	0,57	0,021	-2,40	-1,24	-0,45
	Cotton 4	-0,02	-0,18	0,005	0,18	-0,79	-0,81
Mean Absolute Distance to Reference		0,04	0,46	0,007	0,83	1,24	0,68
Scale Factor (Based on USDA Reproducibility Limits except Rd)		0,10	1,50	0,02	1,00	1,50	0,50
Summary Evaluation for Each Property (=Mean Abs. Distance divided by Scale Factor)		**0,38**	**0,31**	**0,36**	**0,83**	**0,83**	**1,37**
Relevance of Property		1,00	1,00	1,00	1,00	1,00	1,00
Summary Evaluation of All Properties (=Average of all properties)		**0,68**					

Analysis of Each Instrument: Evaluation / Rating

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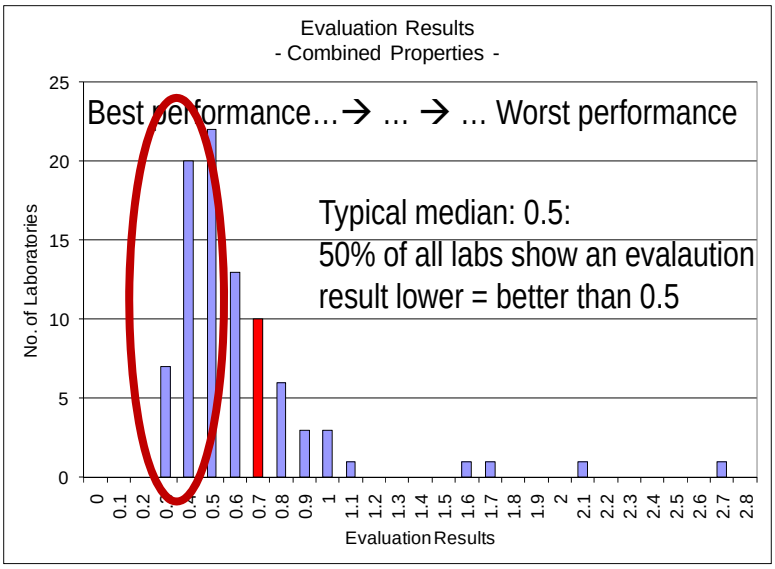

Development of one Examplary Lab: Evaluation Results in CSITC RTs

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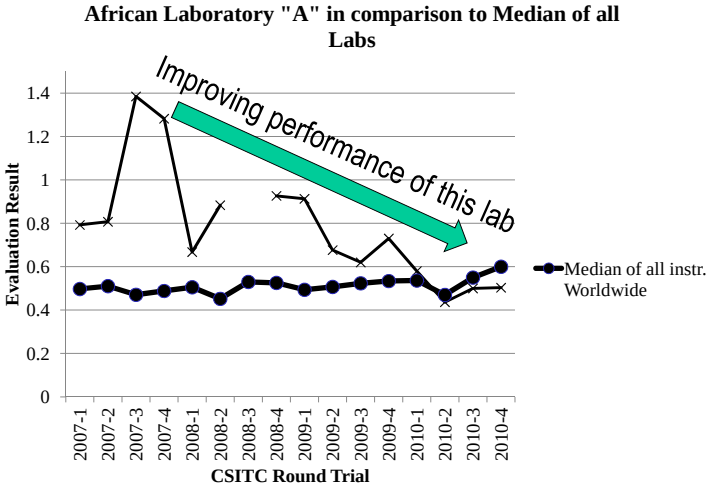
Evaluation

Worse performance

Best performance



This lab improved strongly based on the CSITC support and through RT evaluation info

Within Limits Evaluation

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- Agreed idea for an additional evaluation: „Within Limits Evaluation“
  - Compare the results of each instrument for each cotton based on suitable test result limits:
    - Identify if differences between test results and reference results are in the allowed limits
  - Basis for applying commercial trade limits
  - Now realized for
    1. the average of 30 test results for each sample/property
    2. each single test results for each sample/property

Within Limits Evaluation
based on single test results

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Within Limits Evaluation
Based on Single Test Results

Applied for RT 2011-2

	Micronaire	Strength	Length	Uniformity	Color Rd	Color +b
Limits	0.20	2.0	0.030	2.0	1.5	1.0
	units	g/tex	inch	%	units	units
% of Instruments 100% within limits	59.3	20.3	28.5	47.2	27.6	65.9
% of Instruments ≥95% within limits	80.5	42.3	65.9	78.9	48.0	82.1
% of Instruments ≥75% within limits	95.1	84.6	91.9	98.4	71.5	87.8
% of Instruments ≥65% within limits	95.9	87.0	94.3	98.4	78.0	89.4

Percentage of Results Within Limits

Instrument	Micronaire	Strength	Length	Uniformity	Color Rd	Color +b
GL112-001-01	97	82	71	44	42	100
GL112-001-02	99	86	83	99	13	
GL112-001-03	98	82	96	100	10	99
GL112-002-01	100	100	100	100	100	100
GL112-002-02	100	100	100	100	100	100
GL112-002-04	100	100	100	100	100	100
GL112-003-02	88	76	47	83	83	100
GL112-004-01	100	86	99	100	100	100
GL112-006-01	2	0	83	98	18	100
GL112-007-01	100	97	99	100	93	100

Applied limits; Statistics

Single instruments results

„For this instrument and for length, 83% of the 120 results were measured inside the allowed limits“

3 – Detailed Analysis for Each Instrument: Accuracy

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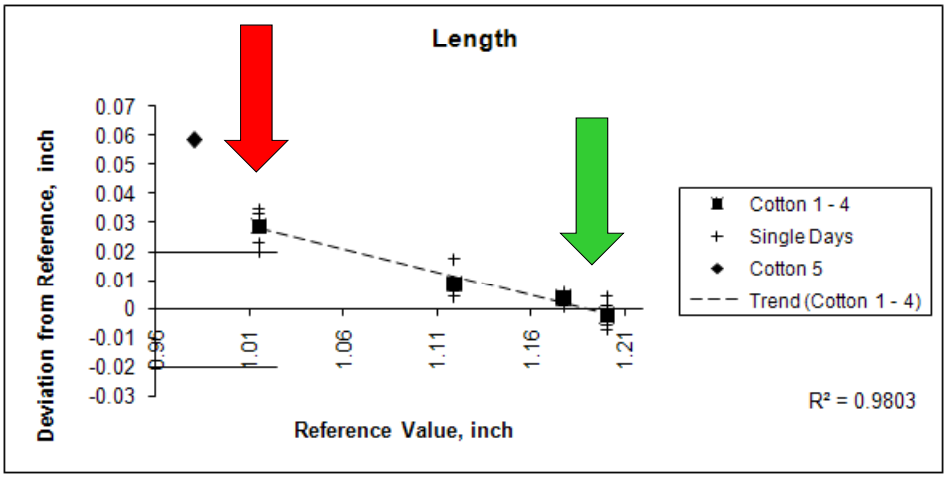
Detailed accuracy evaluation to find deviations / biases



Detailed Analysis for each Instrument: Precision

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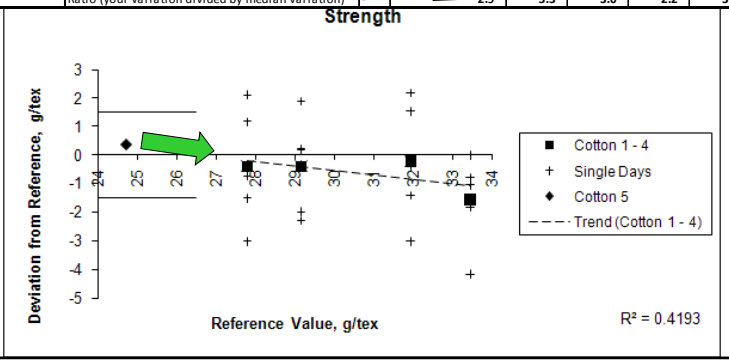
Strength							
Within Instrument Variation			Average (Cotton 1-4)	Cotton 1	Cotton 2	Cotton 3	Cotton 4
	Reference Values for Evaluation			27.804	29.164	33.455	31.947
between different days each with 6 tests	Median variation of all instruments	SD	**0.411**	0.373	0.367	0.445	0.458
	Variation of your instrument	SD	**1.882**	2.061	1.738	1.594	2.134
	Ratio (your variation divided by median variation)	-	**4.6**	**5.5**	**4.7**	**3.6**	**4.7**
between single tests on one day	Median variation of all instruments	SD	**0.587**	0.564	0.529	0.622	0.632
	Variation of your instrument	SD	**1.157**	1.225	1.159	0.779	1.463
	Ratio (your variation divided by median variation)	-	**2.0**	**2.2**	**2.2**	**1.3**	**2.3**
between all tests on different days	Median variation of all instruments	SD	**0.712**	0.678	0.640	0.759	0.769
	Variation of your instrument	SD	**2.074**	2.229	1.950	1.664	2.453
	Ratio (your variation divided by median variation)	-	**2.9**	**3.3**	**3.0**	**2.2**	**3.2**

Exemplary Lab

Sufficient overall accuracy →

Insufficient precision →



31

New Reporting: → General Evaluation Report

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- Section 1: Result distribution — *WITH 3 HEADING PAGES*
  - Tables with inter-instrument and within-instrument variation (6 parameters)
  - Distribution graphs for each property
  - Tables with inter-instrument and within-instrument variation (optional parameters)
  - Distribution graphs for each property — *NOW INCLUDED*
- Section 2: Instrument Evaluation
  - Evaluation combined properties
    - Graph only
  - Evaluation single properties
    - Graphs only
- Section 3: Within Limits Evaluation — *NEW*
  - Based on 30 tests, based on single tests

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New Reporting:
→ Instrument Evaluation Report

- Section 1: Instrument Results and Analysis — *With 3 heading pages*
  - Calculation table for evaluation
  - Calculation table for optional parameters — *New*
  - Detailed analysis graphs
  - Precision evaluation — *Improved*
- Section 2: Instrument Evaluation
  - Evaluation Combined Properties
    - Instrument, table, graph
  - Evaluation Single Properties
    - Instrument, tables, graphs
- Section 3: Within Limits Evaluation — *New*
  - Based on 30 tests, with instrument highlighted
  - Based on single tests, with instr. highlighted

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ROUND TRIALS
FOR EXTRA FINE VARIETIES

Extra Fine Round Trials

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- Conducted from 2009 to 2011
- Only gossypium barbadense varieties, different calibration
- Not part of the CSITC Round Trials
- Mainly planned for supporting extra fine cotton in Northern Africa

- 6 Round Trials, 24 samples
- Up to 12 participants from Egypt, Sudan, Project Partners, other countries (average: 10 instruments)
- Egyptian, Sudanese, US and Spanish varieties
- Different result variation expected than for Upland varieties

- Interest of the laboratories in Extra Fine RT continuation after end of project – irrespective of participation fees

Inter-Instrument Result Variation Summary

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Upland: based on 72 cottons; restricted to US Upland; 90 instruments per RT

Extra fine: based on 24 cottons; restricted to G. barbadense; 10 instr. per RT

Property / Parameter	US Upland SD inter-instrument (30)	Extra Fine SD inter-instrument (30)
Micronaire	0.07	0.08
Strength, g/tex	1.06	1.2
UHML, Inches	0.012	0.013
Uniformity Index	0.53	0.71
Color Rd	1.09	1.07
Color +b	0.37	0.42

Although results cannot be directly compared, the first analysis shows only a slight increase in inter-instrument result variation

Best Practices Guideline

Guideline for Commercial Standardized Instrument Testing of Cotton

ICAC Task Force on Commercial Standardization of Instrument Testing of Cotton
and
ITMF International Committee on Cotton Testing Methods

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Published by:
- International Cotton Advisory Committee (ICAC), Washington, D.C., USA
- International Textile Manufacturers Federation (ITMF), Zurich, Switzerland

Contents

Guideline
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Guideline

- 2 versions
  - Full version with explanations, requirements, additional recommendations and more information (currently 37 pages)
  - Small version with requirements and few basic explanations only (currently 17 pages)
  - Both are edited similarly, and the extraction is done afterwards

- Current version available on
  csitc.org → Technical information → Public information
  or on your CFC/ICAC/33 Arusha CD

Guideline: Short Version

8. Atmospheric Conditions / Conditioning

8.1. Standard Temperature, Standard Humidity and Monitoring/Recording

As the measured characteristics (mainly strength) are influenced by the cotton moisture content and methodology of conditioning, samples must be brought to a moisture content which is in equilibrium with the approved atmospheric conditions before and during testing.

The relevant ASTM Standard Practice is ASTM D 1776 "Standard Practice for Conditioning and Testing Textiles. For cotton testing" [ASTM].

→ The allowed temperature range is fixed at 21 +/- 1°C (70 +/- 2°F)

→ The allowed relative humidity range is fixed at 65 +/- 2% RH

The laboratory has to be conditioned to the above conditions 24 hours a day, 7 days a week during the cotton classing season [ITMF].

It is necessary to monitor the temperature and humidity continuously with independent checking sensors [ITMF].

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→ The allowed relative humidity range is fixed at 65 +/- 2% RH

The tolerance range around the humidity target (+/-2%RH) is even more important than the target (65%RH) itself, as calibration with cotton standards can compensate for slight variations in the absolute RH level, but cannot compensate for short term variations.

(*Recommendations*) Alternatively ISO 139 Textiles Standard Atmosphere for Conditioning and Testing can be applied. For testing,

- The allowed standard temperature is fixed at 20°C with a tolerance of +/-2°C minus the measurement uncertainty of the sensor – so in practice a conformity zone of not more than +/-1°C is allowed
- The allowed standard relative humidity is fixed at 65%RH with a tolerance zone of +/- 4%RH minus the measurement uncertainty of the sensor– so in practice a conformity zone of not more than +/- 2%RH is allowed

The laboratory has to be conditioned to the above conditions 24 hours a day, 7 days a week during the cotton classing season [ITMF].

It is necessary to monitor the temperature and humidity continuously with independent checking sensors [ITMF].

- Timeline
  - First full draft: Now
  - Comments from CSITC TF: Now
  - Approval by CSITC TF in March 2012 (Bremen)
  - Approval by ITMF ICCTM in March 2012 (Bremen)

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ICA LABORATORY CERTIFICATION

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ICA Bremen Certification

- Cotton laboratory specific certification
- Developed by ICA Bremen (ICA, BBB, FIBRE)
- Purpose: To establish a list of laboratories worldwide which meet a standard level of quality assurance, so that they can be used to resolve quality disputes and to provide service to the cotton industry
- In line with ICA Trade Rules and Bylaws
- Aligned with USDA-AMS laboratory prerequisites
- Will be presented on the International Cotton Conference Bremen in March 2012

ICA Bremen Certification

Criteria

- Instrument, Maintenance, Calibration
- Quality Assurance System
- Operator Training
- Air Conditioning / Lab Surrounding
- Round Test Programme Participation
- Daily Check Programme
- On-Site Inspection

→ It will be based on the CSITC Guideline developed in this project

→ It will include satisfactory evaluation results in the CSITC Round Trials developed in this project

→ It is an ideal implementation of the global project findings

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TECHNICAL IMPROVEMENTS

Technical Improvements

- Development of recommendations for improving testing instruments for daily use
- Development of a list of requirements for an integrated power supply system for laboratories → J.-P. Gourlot
- Development of a list of requirements and basic principle drawings for a simple and efficient integrated climate control system → J.-P. Gourlot
- Development of recommendations for a reasonable interaction with humidity / moisture variations
- Analysis of the test result variation and development of measures for limiting the litigation risk → J.-P. Gourlot / E. Lukonge

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CSITC WEBSITE

CSITC Website: www.csitc.org

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CSITC Online Database

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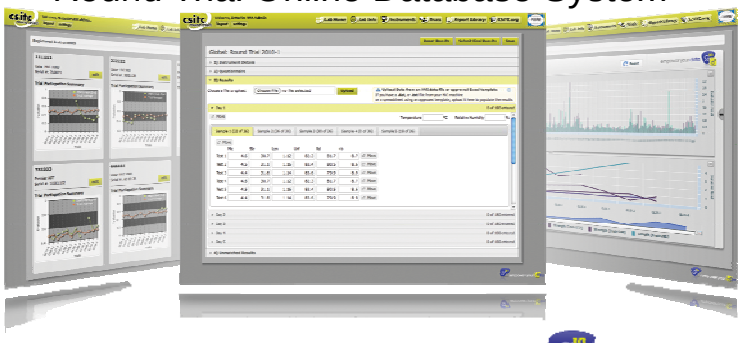
Round Trial Online Database System



empower your data

Upload data directly from the instrument, check uploaded data

All instrument specific and general reports — DIY analysis

Analysis of instrument performance from RT to RT — Edit lab information

Full online administration

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Commercial Standardization of Instrument Testing of Cotton: Global Achievements of the Project

Axel Drieling
Faserinstitut Bremen e.V. (Bremen Fibre Institute "FIBRE")
ICA International Quality Testing and Research Centre Bremen

Thank you for your kind attention !

Thank you to the financial contributors **CFC** and **EU**, who made this work possible as part of the CFC/ICAC/33 project.