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CSITC Task Force Contributions

Axel Drieling
Bremen Fibre Institute (FIBRE) /
ICA Bremen

29th Meeting of the CSITC Task Force
Abidjan, Côte d'Ivoire, Dec. 2nd, 2018

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3: Round Trial Results

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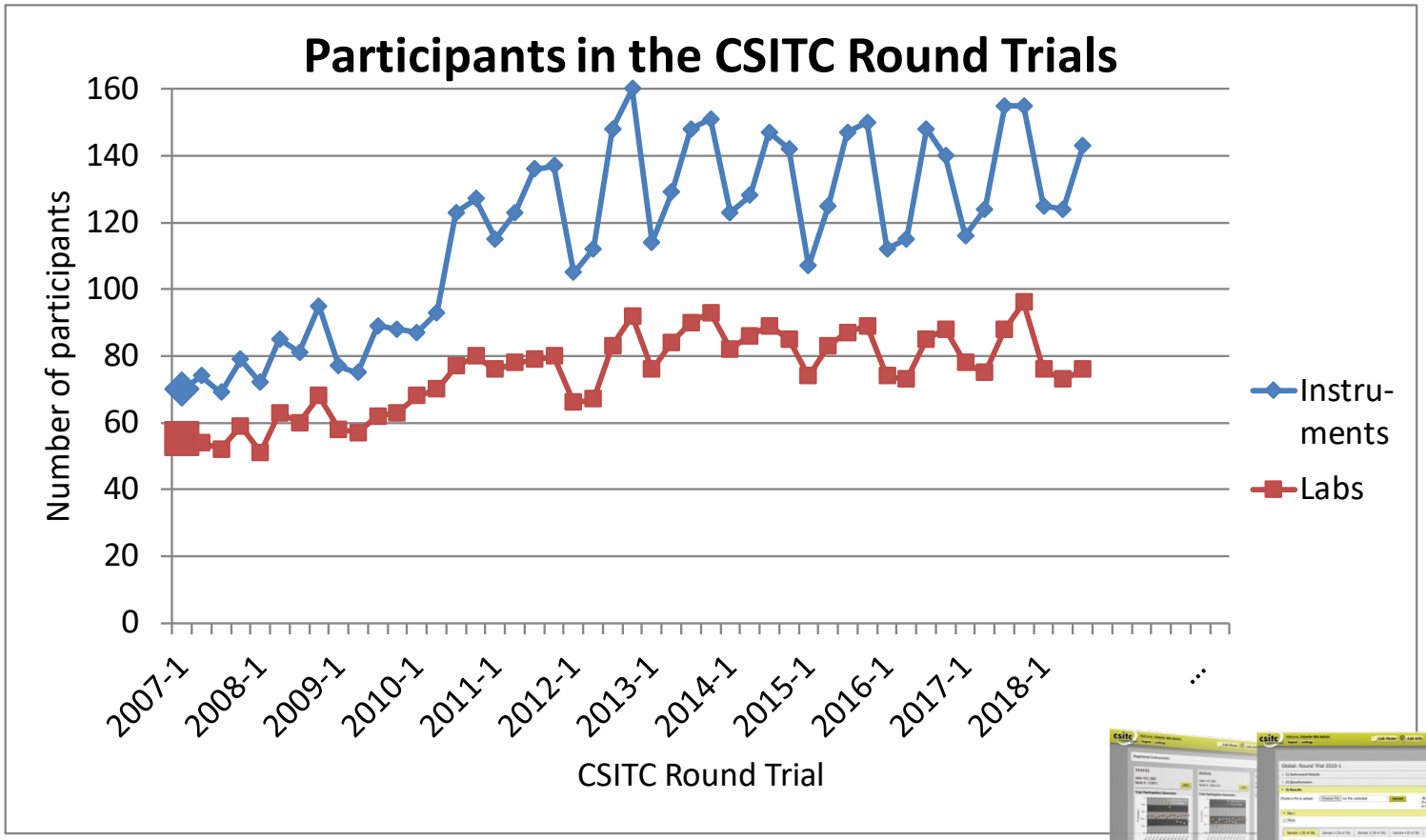
CSITC RT Participation up to RT 2018-3



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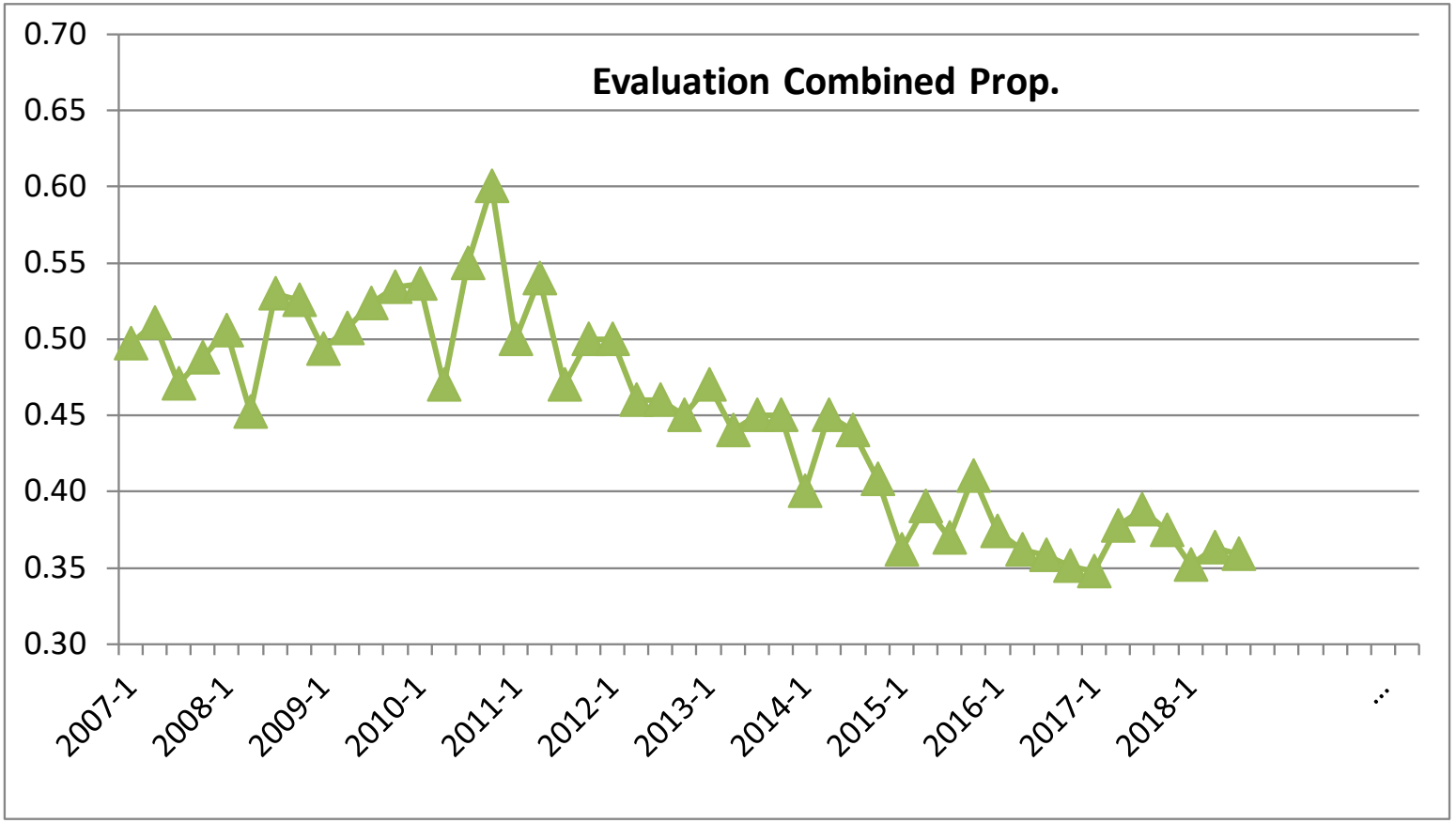
CSITC RT: Evaluation of Combined Properties (to 2018-3)



Lower Evaluation Result = Better Performance / Less Deviations

Median of all instruments: 50% of the instruments show better results than this value

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Evaluations for Each Property

	Number of Participants		Median Evaluations							Median Eval. Trash	
	Instru-ments	Labs	World: Median Evaluation Combined Prop.	Evaluation Micronaire	Evaluation Strength	Evaluation Length	Evaluation Uniformity	Evaluation Color Rd	Evaluation Color +b	Trash Count	Trash Area
Scale Value				0.10	1.50	0.02	1.00	1.50	0.50	1.4 x USDA	1.2 x USDA
Relevance				1	1	1	1	1	1	0	0
min	69	51	0.35	0.34	0.28	0.25	0.29	0.20	0.25	0.27	0.26
max	160	96	0.60	0.64	0.64	0.52	0.49	0.71	0.74	0.42	0.43
AV 2017	138	84	0.37	0.37	0.35	0.37	0.33	0.25	0.37	0.36	0.38
AV 2018	131	75	0.36	0.39	0.33	0.36	0.34	0.26	0.35	0.29	0.32
2018-1	125	76	0.352	0.40	0.28	0.34	0.31	0.27	0.25	0.28	0.26
2018-2	124	73	0.363	0.41	0.33	0.36	0.33	0.23	0.41	0.29	0.30
2018-3	143	76	0.359	0.37	0.37	0.37	0.37	0.28	0.39	0.30	0.40
2018-4											

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Evaluations for Each Property

	Number of Participants		Median Evaluations							Median Eval. Trash	
	Instru-ments	Labs	World: Median Evaluation Combined Prop.	Evaluation Micronaire	Evaluation Strength	Evaluation Length	Evaluation Uniformity	Evaluation Color Rd	Evaluation Color +b	Trash Count	Trash Area
Scale Value				0.10	1.50	0.02	1.00	1.50	0.50	1.4 x USDA	1.2 x USDA
Relevance				1	1	1	1	1	1	0	0
min	69	51	0.35	0.34	0.28	0.25	0.29	0.20	0.25	0.27	0.26
max	160	96	0.60	0.64	0.64	0.52	0.49	0.71	0.74	0.42	0.43
AV 2007-11	95	66	0.51	0.51	0.47	0.41	0.37	0.50	0.49		
AV 2012-15	134	83	0.43	0.44	0.37	0.37	0.35	0.37	0.42		
AV 2016	129	80	0.36	0.37	0.33	0.32	0.32	0.26	0.37	0.36	0.37
AV 2017	138	84	0.37	0.37	0.35	0.37	0.33	0.25	0.37	0.36	0.38
AV 2018	131	75	0.36	0.39	0.33	0.36	0.34	0.26	0.35	0.29	0.32
Improved Evaluation Grade 2018 / 2007-11			**-30%**	**-23%**	**-30%**	**-14%**	**-10%**	**-49%**	**-28%**	**-16%**	**-13%**

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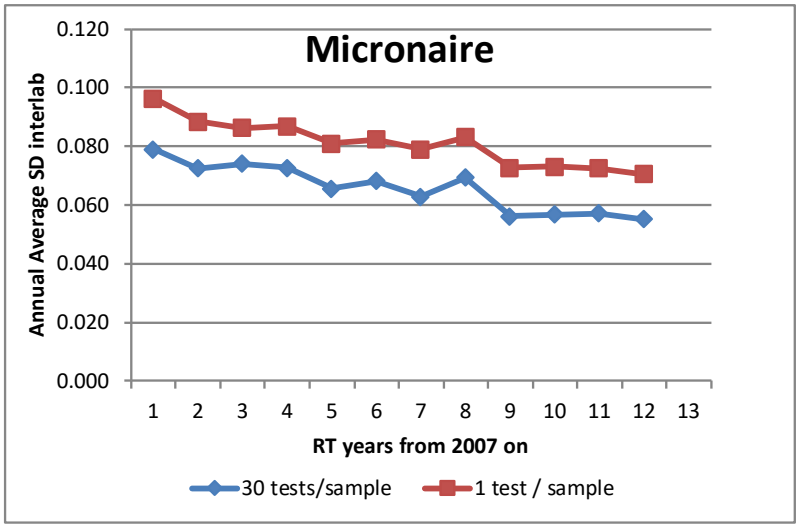
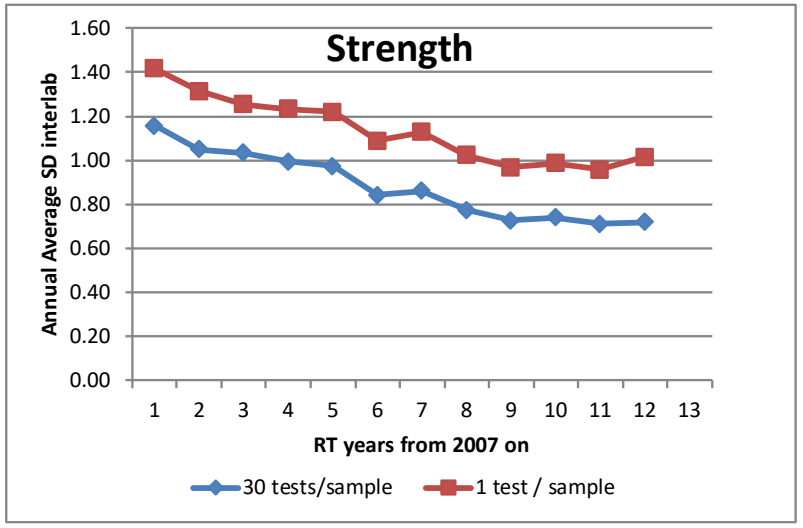
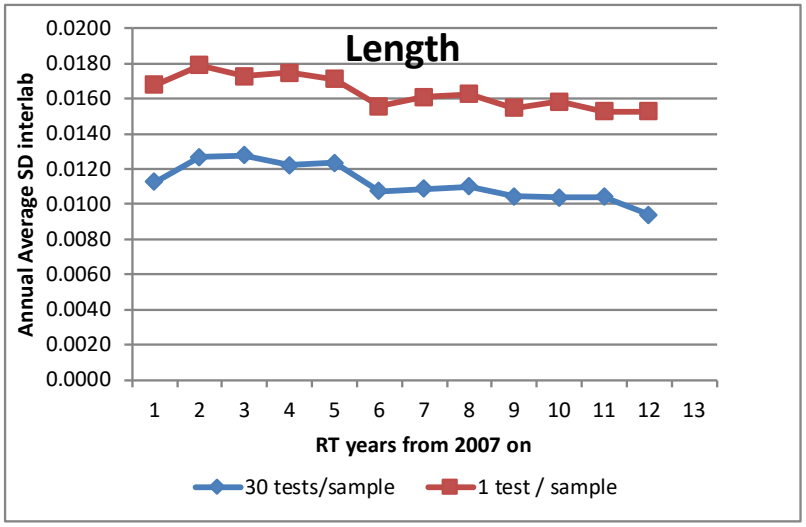
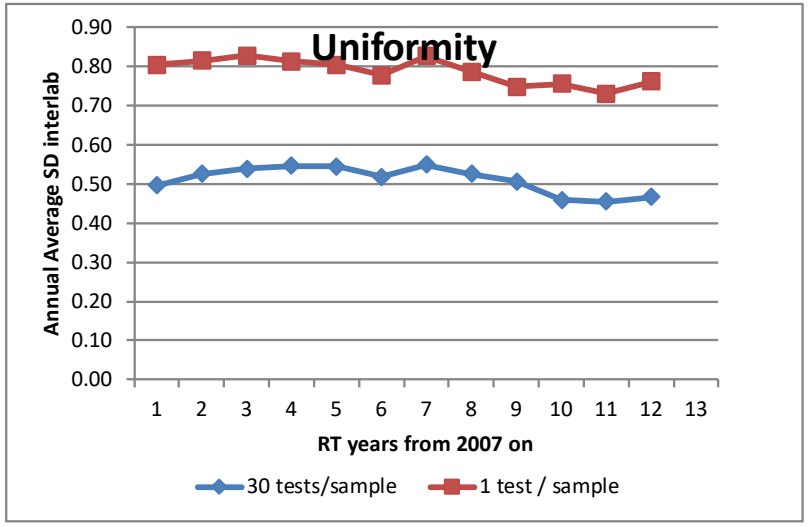
Interlaboratory Std.Dev. 1









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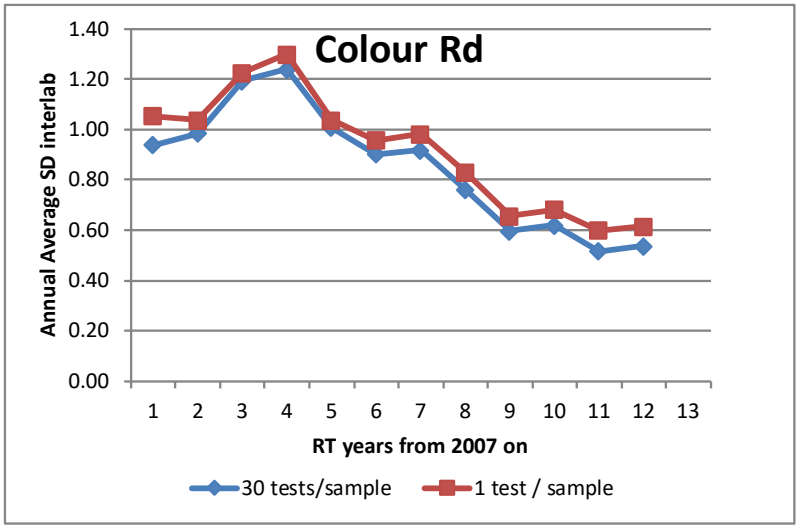
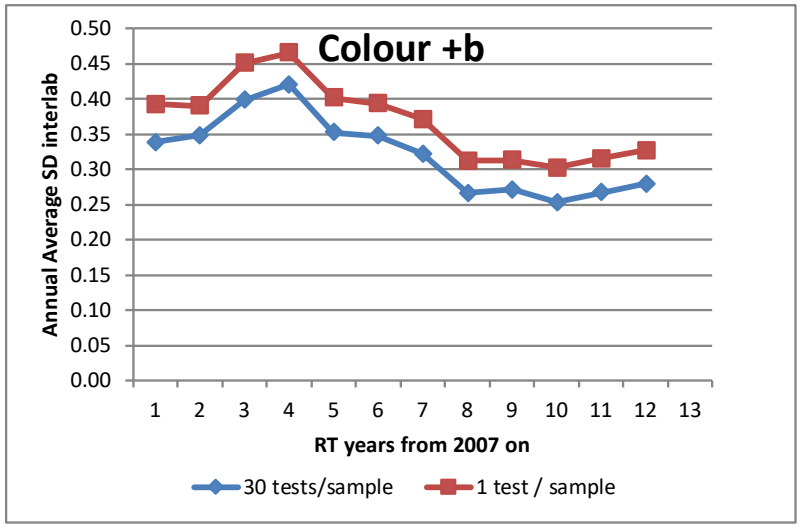
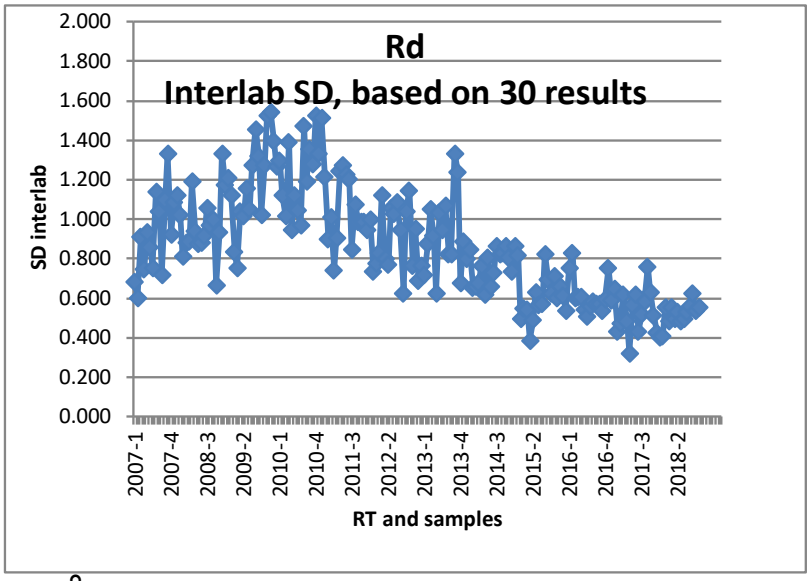
Interlaboratory Std.Dev. 2







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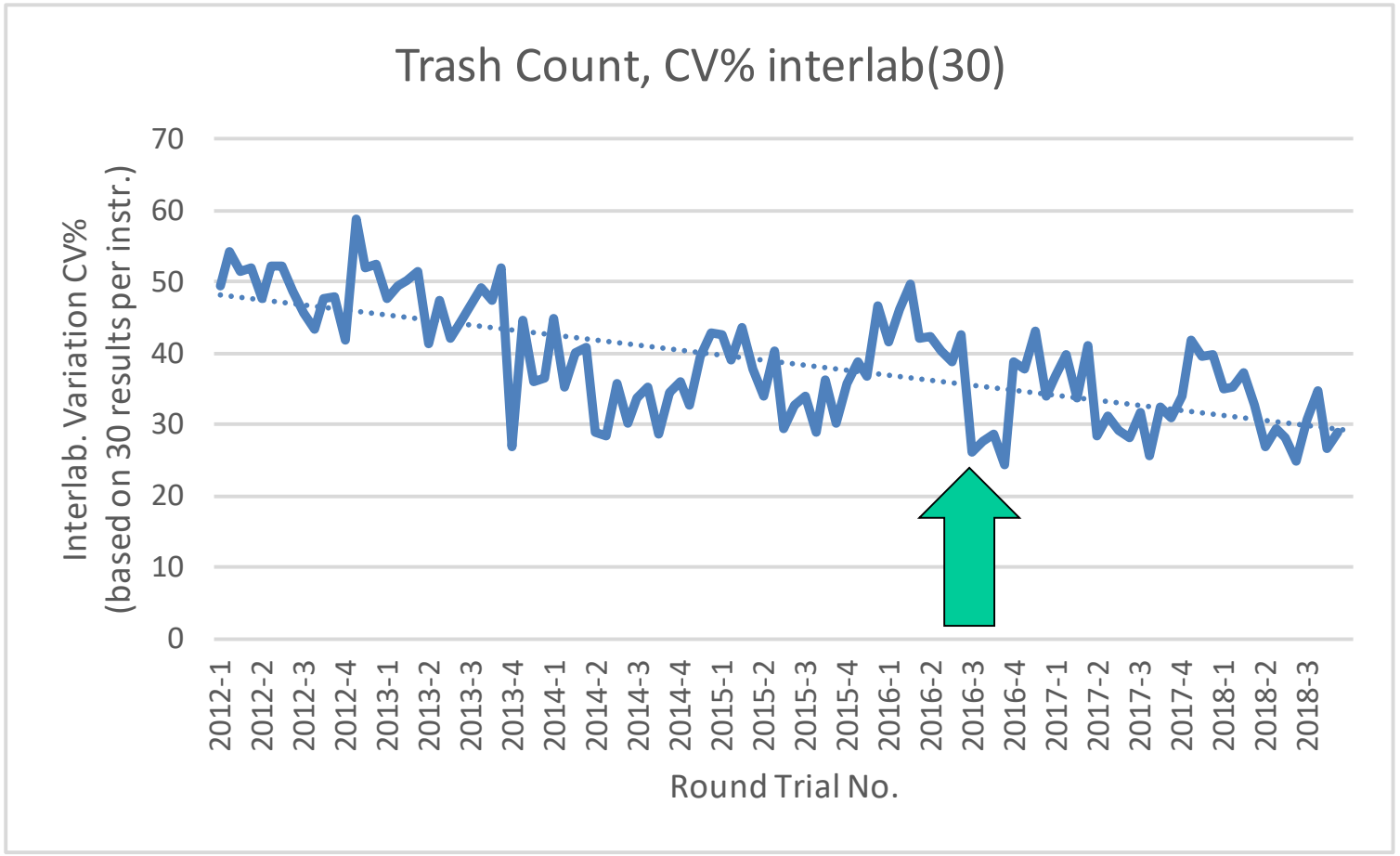
Interlaboratory CV% – Optional Parameters



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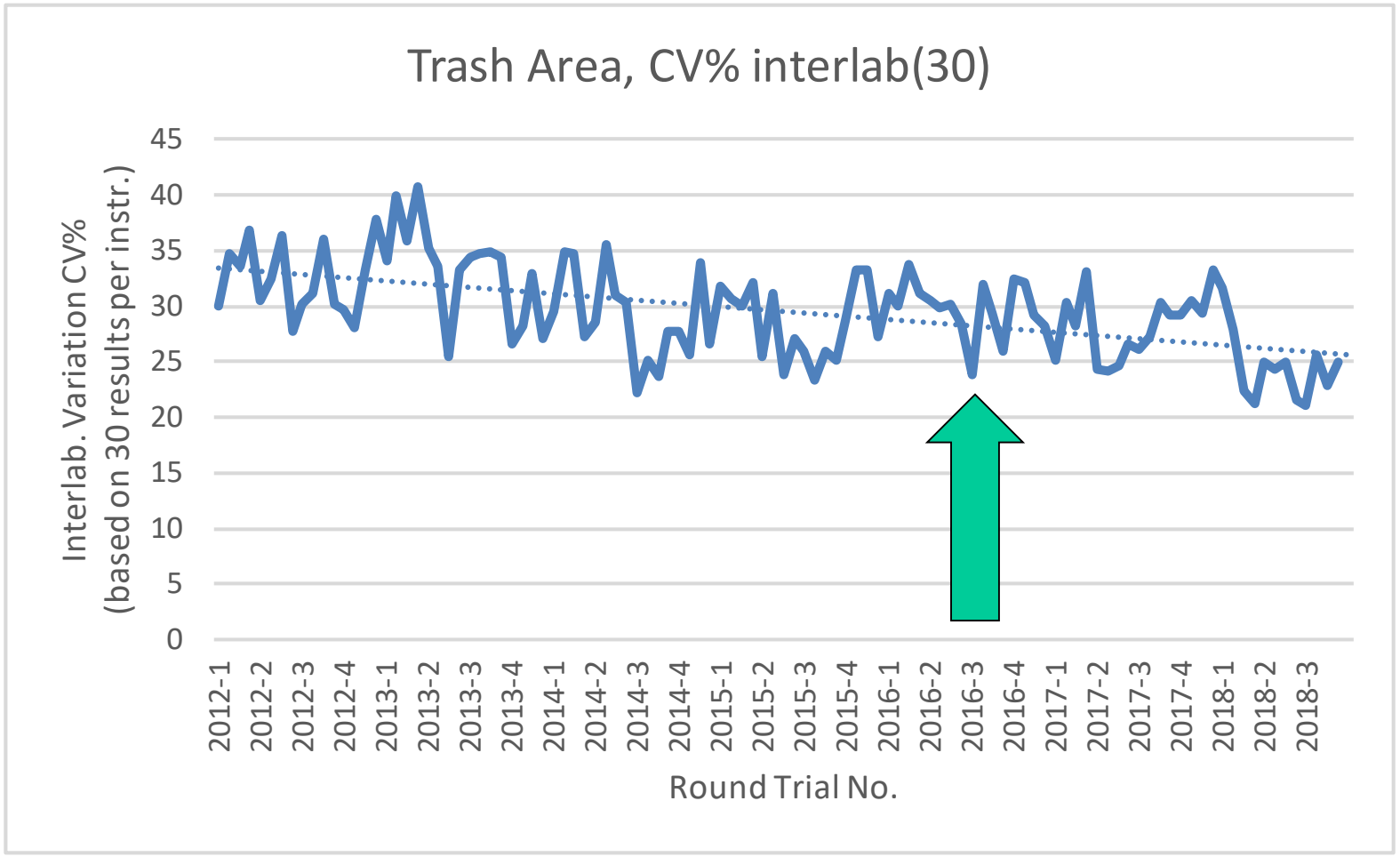
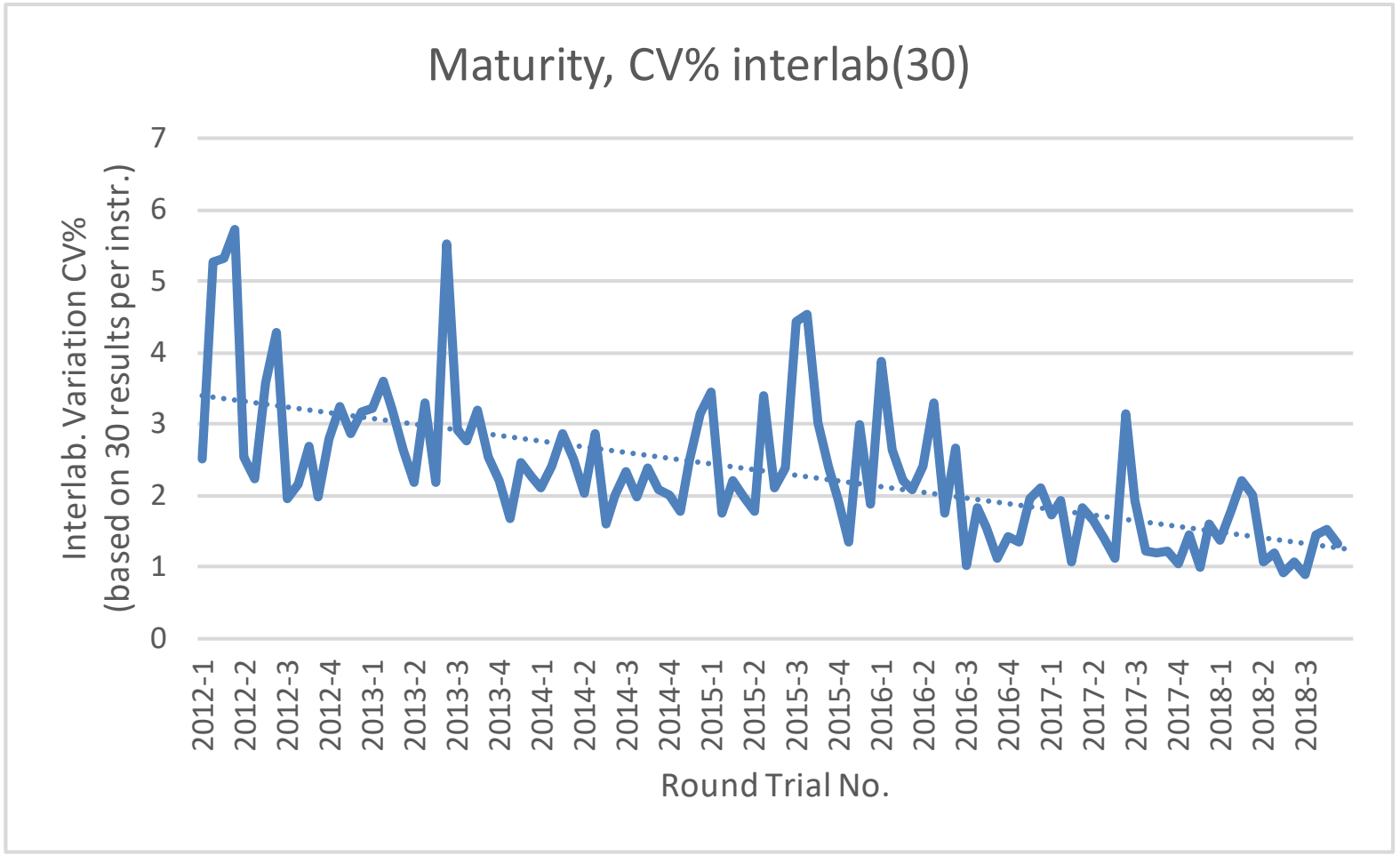
Interlaboratory CV% – Optional Parameters



The CFC/ICAC/33 project was co-funded by the European Union and the Common Fund for Commodities

Interlaboratory CV% – Optional Parameters



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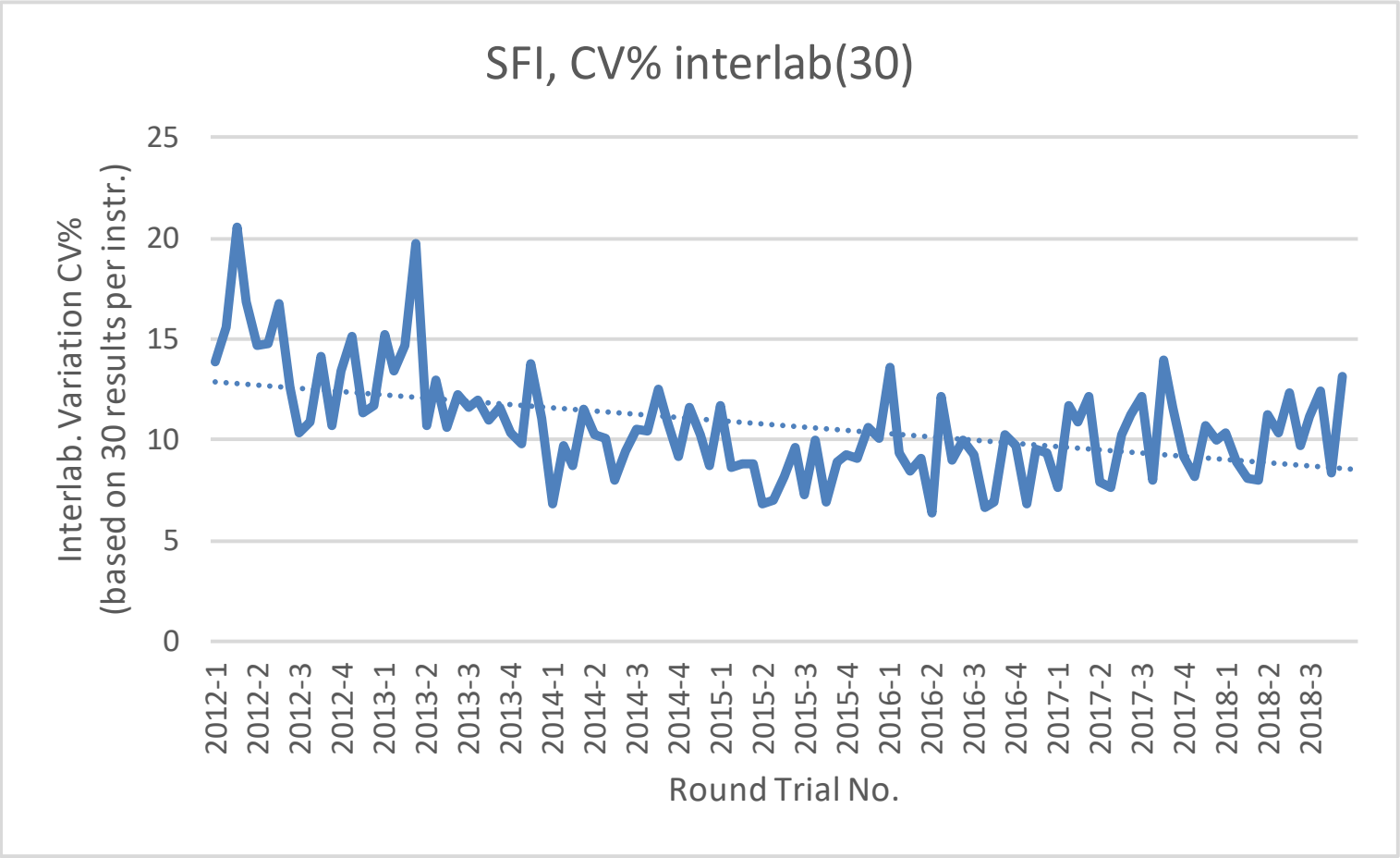
Interlaboratory CV% – Optional Parameters



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5: Program to Increase Participation

The CFC/ICAC/33 project was co-funded by the European Union and the Common Fund for Commodities

Participation 2018: Kinds of Laboratories

Kind of lab	No. of labs
Lab: Production/Classing/Cotton Association	55
Lab: Control	17
Lab: Instrument Manufacturer	8
Lab: Spinning/Processing	10
Lab: Research	12
Lab: Others	1
not specified	24

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Participation 2017/2018 (published by ICAC)

Australia

- Auscott Ltd
- Australian Classing Services
- ProClass Pty Ltd.

Brazil

- ABAPA – Associação Baiana dos Produtores de Algodão
- ABRAPA CBRA – Brazilian Cotton Analysis Reference
- AGOPA – Associcao Goiana dos Produtores de Algodao
- AMIPA – Minas Cotton
- AMPASUL - Associacao Sul Mato-Grossense dos Produtores de Algodao
- BM&F Bolda de Mercadoria & Futoros (BRASIL, BOLSA, BALCÃO)
- Comfio Companhia Catarinense de Fiacao
- COOPERFIBRA - Cooperativa dos Cotonicultores de Campo Verde
- Kuhlmann Monitoramento Agrícola Ltda - Roda Velha, BA
- Kuhlmann Monitoramento Agrícola Ltda – Rondonopolis, MT
- Kuhlmann Monitoramento Agrícola Ltda – Sapezal, MT
- Kuhlmann Monitoramento Agrícola Ltda – Sorriso, MT
- SENAI / SC - BLUMENAU - Serviço Nacional de Aprendizagem Industrial
- Unicotton–Cooperativa de Produtores de Algodão, MT

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Participation 2017/2018

Burkina Faso

- SOFITEX - Laboratoire de Classement du Cotton

China, People's Republic

- Davrosh Ltd
- Hebei Entry-Exit Inspections & Quarantine Technical Laboratory
- Qingdao Inspection and Assessment Co., LTD
- Shanghai Institute of Quality Inspection and Technical Research
- Uster Technologies (Suzhou) Co. Ltd
- Wakefield Inspection Services (Shanghai) Ltd.
- Xinjiang Esquel Agritechnology Co. Ltd
- Zhangjiagang Academy of Inspection and Detection

Colombia

- DIAGONAL - Distribuidora de Algodon Nacional

Cote D'Ivoire

- Wakefield Inspection Services (Cote D'Ivoire)

Egypt

- CATGO - Cotton Arbitration & Testing General Organization

El Salvador

- Inmobiliaria Apopa S.A DE C.V

Ethiopia

- Textile Industry Development Institute (TIDI)

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Participation 2017/2018

France
- Cirad Persyst Ltc.

Germany
- FIBRE - Faserinstitut Bremen e.
- Textechno Herbert Stein GmbH Co. KG

Greece
- DEMETRA - Hellenic Agricultural Organization
- Konstantinos V. Markou S.A.
- Thrakika Ekkokistira S.A.

India
- ATIRA
- Cotton Association of India
  - CAI Ahmedabad
  - CAI Akola
  - CAI Aurangabad
  - CAI Bathinda
  - CAI Guntur
  - CAI Hubli
  - CAI Indore
  - CAI Mumbai
  - CAI Mundra
  - CAI Rajkot
  - CAI Warangal
- Premier Evolvics Pvt. Ltd.
- Sportking India Limited
- Sudiva Spinners PVT LTD
- Thiagarajar Mills (P) Ltd.
- U. B. Cotton Pvt. Ltd.
- Vardhman Spinning & General
- Wakefield Inspection Services (India) Pvt. Ltd.
  - WIS Mumbai
  - WIS Rajkot

Israel
- Israel Cotton Board

Italy
- Mesdan Spa

Japan
- Boken Quality Evaluation Institute

Kenya
- Agriculture Fisheries & Food Authority

Latvia
- Wakefield Inspection Services (Baltic)

Mali
- CERFITEX

Pakistan
- Karachi Cotton Association (KCA)

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Participation 2017/2018

Senegal
- SODEFITEX

South Africa
- Cotton South Africa
- Prilla 2000 (Pty) Ltd.

Spain
- Centro Algodonero Nacional

Sudan
- Sudan Cotton Company
- Agricultural Research Center

Switzerland
- LOEPFE Brothers Ltd.
- Uster Technologies AG

Tajikistan
- Wakefield Inspection Services
  - WIS Dushanbe
  - WIS Hatlon
  - WIS Khojend

Tanzania
- TBS - Tanzania Bureau of Standards
- TCB – Tanzania Cotton Board

Thailand
- THAI Industries Development Co., Ltd

Togo
- Wakefield Inspection Services (Togo)

Turkey
- GAP International Agricultural Research and Training Center
- Izmir Ticaret Borsasi
- WIS Turkmenistan c/o WIS Turkey

Uganda
- Cotton Development Organisation

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Participation 2017/2018

United States of America

- Cotton Incorporated / Product Evaluation Laboratory
- Fiber and Biopolymer Research Institute
- Monsanto HVI
- USDA AMS Cotton Program
  - Abilene TX
  - Corpus Christi TX
  - Dumas AR
  - Florence SC
  - Lamesa TX
  - Lubbock TX
  - Macon GA
  - Memphis TN
  - Rayville LA
  - Visalia CA
- USDA AMS Cotton Program - Cotton Quality Assurance Branch
- USDA AMS Cotton Program Quality Assurance Division
- USDA ARS–Southern Regional Research Center
- Uster Technologies, Inc.

Uzbekistan

- SGS Tashkent Ltd.
- SIFAT Samarkand Regional Laboratory
- SIFAT Syrdarya Regional Laboratory
- SIFAT-Uzbek Centre for Certification of Cotton Fiber Central Laboratory - Tashkent
- Wakefield International Standards

Vietnam

- Brotex (Vietnam) Co., LTD
- Wakefield Inspection Services (Vietnam) Co. Ltd.

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Advertisement: Flyer for Spinners

Get very specific information about your testing instruments and their performance. CSITC participants are given highly detailed analyses of the performance of their equipment in a variety of parameters, greatly reducing testing quality variation.

Make a statement to potential customers. Participating in CSITC Round Trials can be a powerful marketing tool. Although laboratories get detailed information about their instruments, they are also given an Overall Evaluation Result — a single, easy-to-understand number grade that tells the world that your business cares about quality.

Ensure that if you need to file a claim, you'll win it. No one ever wants to file a claim on a shipment, but if you have to, you need to win — and that means you need to be sure that your results are accurate. The CSITC Round Trials give you that peace of mind.

Test results are neutral, objective, and completely confidential. CSITC Round Trials are organised and managed by names you can trust to be impartial: the International Cotton Advisory Committee (ICAC), Faserinstitut and the US Department of Agriculture. And the results are given only to the officially designated contacts provided by the participant, so no one will see them unless you want them to. Laboratories can even opt out of having their name listed as a participant if they choose.

To learn more about the CSITC Round Trials, please contact:

- Registration questions: Yana Pomerants, ICAC (csitcsecretariat@icac.org)
- Technical questions: Axel Drieling, Bremen Fibre Institute (FIBRE), (drieling@faserinstitut.de)

You can also visit www.csitc.org or www.icac.org.

CSITC

CSITC Round Trials for Spinners

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Washington DC 20006, USA
+1(202) 463-6660 ext. 114
csitcsecretariat@icac.org

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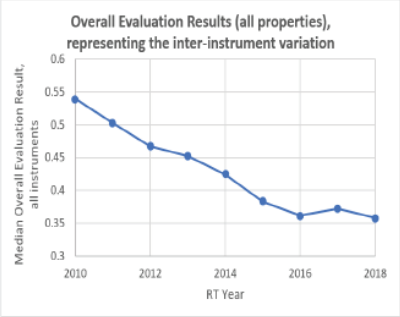
Advertisement: Flyer for Spinners

Improve Your Profitability with Accurate Test Results

The key to success for spinners is easy to understand but can be difficult to achieve. When as much as two-thirds of your operating costs come from the purchase of raw materials, you need to be 100% certain that you're getting the quality you paid for. The only way to be sure is to test the fibres — with instruments that are proven to be both accurate and consistent. Knowing the exact characteristics of the fibre is also critically important to getting the best bale laydown for consistent yarn quality, all the way up to the final fabric.

In other words, success is much easier to achieve when your high-volume instrument (HVI) testing equipment produces consistent, accurate, and precise results — which is exactly what the Commercial Standardisation of Instrument Testing of Cotton (CSITC) Round Trials were created for.



How do I know if my instruments produce consistent, accurate, precise results?

The answer is simple! Ensure that your laboratory participates in the CSITC Round Trials. Participating labs get a set of samples every quarter, test them and compare their results to the average of more than 100 other instruments (as well as to USDA established results). By frequently comparing your results to those of many other laboratories, you ensure that your instruments consistently produce internationally accepted, accurate results.

How can I be sure that participating in the Round Trials is worth my time and effort?

Real world results, because the numbers don't lie. Since 2011, laboratories participating in CSITC Round Trials have reduced their testing results variation by an average of 30%!

The graph at left represents the median Overall Evaluation Results for all instruments, which shows a 30% decrease in variation between laboratories as an average of all cotton properties. The chart at right shows that specifically for strength, variation between test results for CSITC laboratories has decreased drastically due to their participation in the Round Trials.

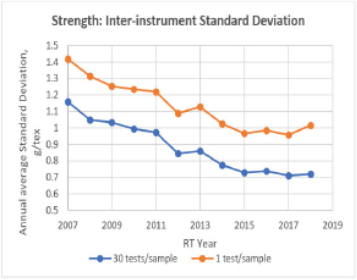
But what does that actually mean? What's the 'cash value' of reductions in variation?

CSITC standardised instrument test results are intended to give you accurate and precise quality information about your cotton, which allows you to utilise your cotton stock in the most efficient and profitable way possible. Let's take a look at how that impacted one laboratory.

A case study of a spinner with 50,000 spindles, operating 350 days per year, showed that by using HVI test results with consistent results on an accurate level, the mill decreased variation in quality, which reduced blowroom and card waste by 5% and comber noil waste by an astonishing 23%. That translated into savings of more than $110,000 in a single year! That's money that goes straight to your bottom line.

Are there any other advantages to being a Round Trials participant?

Make the most of your raw materials. CSITC standardised instrument test results enable you to utilize your cotton stock most efficiently. When as much as 70% of your operating expense comes from purchasing raw materials, you can't afford to be off — even by a little bit.



Remove the need for redundant testing. As a Round Trials participant, you will be able to use the testing results data of any other CSITC-verified laboratory with confidence, eliminating the added time and expense of re-testing the fibre yourself.

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Advertisement

- Given
  - Hossein‘s presentation for spinners
- Planned:
  - Separate Flyer for cotton production
  - Separate technical flyer addressed to lab heads
- New documentations
  - What you need to know about CSITC Round Trials (prior to registration)
  - Welcome to the CSITC Round Trials (after registration)

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CSITC

What You Need to Know about the CSITC Round Trials

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- Technical questions: Axel Drieling, Bremen Fibre Institute (FIBRE), (drieling@faserinstitut.de)

You can also visit www.csitc.org or www.icac.org.

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csitcsecretariat@icac.org

CSITC Round Trials

In 2003, the International Cotton Advisory Committee (ICAC) created the Task Force on Commercial Standardisation of Instrument Testing of Cotton (CSITC) as it was agreed that the industry needed to standardise instrument test results as the basis for a universal accepted way to measure the quality characteristics of cotton. The stakeholders agreed to create the CSITC Round Trials, which officially began in 2007 with four primary goals:

1. Control variation in testing instruments by comparing the test results of each laboratory to reference results for the given samples.
2. Enable labs to continuously monitor their results and deviations, thus ensuring a consistent and accurate test result level for their instrument(s).
3. Provide detailed analyses that will help the laboratories to improve — for example, by contacting the instrument manufacturer in case of problems.
4. Giving each instrument an Overall Evaluation Result (OER), which verifies the ability of a laboratory and its equipment to offer consistently good performance.

How Do the Round Trials Work?

There are four Round Trials each year. CSITC officials send out a set of four samples to participating laboratories during the first week of each quarter; each sample must be tested six times daily for five days. Laboratories then upload their instrument results to www.csitc.org by the last day of the second month of each quarter (28/29 February; 30 May; 31 August and 30 November). Round Trial evaluation results are then sent to the labs during the last two weeks of each quarter.

Confidentiality Is Assured

The results for each laboratory remain completely confidential — no one other than the laboratory and its registered contacts will see any laboratory/instrument test results or evaluation results. A general report about the interlaboratory result variation and distribution of instrument evaluations is published to demonstrate the accuracy and precision of cotton testing data, but individual results are never published. Laboratories can even opt to not be listed as a Round Trial participant if they choose.

How and When Do I Register?

Laboratories can register at any time, and they will begin the process at the beginning of the next quarter. Participation is expected for four quarters per year, unless the laboratory is closed for one quarter or more. Payment is per sample set, and up to four individual instruments can be evaluated.

What Types of Equipment Can Be Included?

The Round Trials are for high-volume instrument (HVI) testing equipment, or similar instruments. All manufacturers and models are eligible (Uster HVI 1000, Spectrum, 900; Premier ART, HFT; MAG HVT, etc.), as long as they are testing based on USDA Universal Cotton Calibration Standards and parameters. The tested parameters include:

- Micronaire
- Strength
- Length (UHML), length uniformity
- Colour (Rd and +b)
- Trash area and count (optional)
- Short Fibre Index (optional)
- Maturity (optional)

How Are Results Evaluated?

Several analyses are provided with each Round Trial for each property, including accuracy (are the results 'right'?) and precision (how much variability between each test). Six properties — micronaire, strength, UHML, LU, Rd, +b — are used to provide an overall evaluation that reflects the performance of the instrument with a single number.

Who Operates the Round Trials?

There are three organisations that manage CSITC Round Trials: ICAC, the Bremen Fibre Institute (FIBRE) and USDA-AMS. ICAC handles registration and payment; FIBRE analyses results, sends out the reports and responds to general and technical questions; and USDA dispatches the samples. Upon request, USDA can send calibration material as well. In order to reflect the actual daily performance, the same calibration material should be used for the Round Trial as well as for everyday testing.

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Preparation for Uster Programs

- G10 provided payment possibilities in the database
- G10 provided tools to effectively adminstrate and control payments in the database.
- Documents have been developed that Uster can use for their contact to their customers.
- Specific registration forms have been prepared for participants in the Uster programs.

- From CSITC side, everything is prepared for the start of the Uster programs.