



From the Secretariat

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19th CSITC ROUND TRIAL COMPLETED

The 19th Round Trial under the auspices of the Task Force on Commercial Standardization of Instrument Testing of Cotton (CSITC RT 2011-3) was conducted from July to September 2011. During the 19th Round Trial, 79 testing facilities from all continents submitted results from 136 instruments.

CSITC Round Trials serve cotton-testing laboratories in the same way that Greenwich serves international time zones. Each round trial consists of five samples prepared by the U.S. Department of Agriculture (USDA) and sent to participating laboratories. Each sample is tested in each laboratory six times a day for five days for all six CSITC parameters of micronaire, length, length uniformity, strength, Rd and +b, resulting in a total of 900 measurements from each instrument. Results are downloaded electronically and sent to the Bremen Fibre Institute for evaluation. Because of the large number of observations over a five-day period, the resulting pattern of results can be used for detailed diagnostic evaluation.

Laboratories are not given grades or pass/fail results, and all results are confidential. The purpose of CSITC round trials are to facilitate improvements in both accuracy and precision among cotton testing laboratories around the world.

The typical inter-laboratory variations achieved by instrument testing, given as standard deviations, were:

CSITC RT 2011-3

Property	Standard Deviation based on Single Tests	Standard Deviation based on 30 Tests/Sample
Micronaire	0.075 mic	0.062 mic
Strength	1.23 g/tex	0.94 g/tex
Length	0.017 inches	0.012 inches
Length Unif.	0.76 units	0.49 units
Color Rd	1.04 units	0.98 units
Color +b	0.45 units	0.41 units

Laboratories are given an overall ranking, as well as rankings for performance on each of the six parameters. Rankings are based on the results of each lab in coming closest to the mean (average) values for all laboratories participating in the Round Trial on all six parameters.

The range of scores for the combined properties among the 136 instruments was 0.24 to 2.72 (a score of zero would be perfect), and the median overall evaluation of combined properties was 0.47.

Optional Parameters

Besides the 6 parameters for ranking, an additional 4 parameters were included for information purposes: Short Fiber Index (SFI), Maturity, Trash Area and Trash Count. The inter-laboratory variations for the four additional parameters are higher than the variations for the 6 parameters approved by CSITC. Therefore, laboratories are not evaluated according to the extra four parameters. Nevertheless, the resulting deviations for each parameter provide useful information to market participants.

The typical inter-laboratory variations achieved by instrument testing, given as standard deviations, were:

CSITC RT 2011-3

Property	Standard Deviation based on Single Tests	Standard Deviation based on 30 Tests/Sample
Trash Count	10.08	9.51
Trash Area	0.07 %	0.05 %
Maturity	3.21	3.21
SFI	1.72	1.64

Within-Limits Evaluations

Beginning with this round trial, laboratories are also being informed as to what proportion of their test results are within a given limit for each parameter. This information will provide additional practical information that will be useful in improving testing performance.

Average Percent of Results or Instruments Testing Within Established Limits:

CSITC RT 2011-3

Property	Limit Chosen by CSITC	Average % of results inside the limits	% of instruments with all sample results inside the limits	Average % of results inside the limits	% of instruments with 95% of sample results inside the limits
		based on 30 tests/sample	based on 30 tests/sample	based on 1 test/sample	based on 1 test/sample
Micronaire	0.20 units	97.0	95.6	96.1	89.6
Strength	2.0 g/tex	92.3	83.1	86.4	57.4
Length	0.03 inches	96.7	91.2	93.5	74.3
Length Unif.	2.0 units	99.6	98.5	97.5	83.8
Color Rd	1.5 units	84.6	76.5	85.0	60.6
Color +b	1.0 units	95.1	89.4	93.7	81.8

Information about CSITC and overall Round Trial results (information for individual laboratories is confidential) is available at www.CSITC.org.

Press releases are available via e-mail. Register online for this free service at:
<https://www.icac.org/cart/register.php?newsletter=1>

The Secretariat of the Committee publishes information related to world cotton production, supply, demand and prices, and provides technical information on cotton production technology. Detailed statistics are found bimonthly in *COTTON: Review of the World Situation*, \$190 per year via email, \$230 per year in hard copy. A monthly outlook is available by email for \$300 per year. Access to the latest weekly estimates of world cotton supply and use by the Secretariat is available on the Internet for \$460 per year. Access Secretariat reports at www.icac.org.