International Cotton Advisory Committee

CSITC
Global - Round Trial 2017 - 4
General Evaluation

Section One: Result Distribution
Section Two: Instrument Evaluation
Section Three: Within Limits Evaluation

Section One: Result Distribution

Content:

Mandatory Parameters
- -Summary Table
- -Distribution Graphs

Optional Parameters
- -Summary Table
- -Distribution Graphs

Executed By:
Faserinstitut Bremen e.V., Bremen, Germany*
USDA-AMS, Memphis, TN, USA

System Provided by:
Generation 10 Limited

This report is an outcome of the Project CFC/ICAC/33 – CSITC,
which benefitted from support from the Common Fund for Commodities
and the European Union, partners in Commodity Development.

** Faserinstitut Bremen are a Cooperation Partner with ICA Bremen*

Global - Round Trial 2017 - 4

Inter-Instrument Averages, Inter-Instrument Variations, Typical within-instrument Variations

Micronaire							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			3.715	4.195	4.618	4.818	
Reference Values for Evaluation			3.715	4.195	4.618	4.818	
Number Of Instruments			155	155	155	155	**155**
Inter-Instrument Variation	based on 30 tests	SD	0.072	0.066	0.074	0.052	**0.066**
		CV %	1.9	1.6	1.6	1.1	**1.5**
	based on 6 tests	SD	0.079	0.074	0.081	0.062	**0.074**
		CV %	2.1	1.8	1.7	1.3	**1.7**
	based on single tests	SD	0.089	0.081	0.092	0.072	**0.083**
		CV %	2.4	1.9	2.0	1.5	**2.0**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.027	0.025	0.028	0.025	**0.026**
		CV %	0.7	0.6	0.6	0.5	**0.6**
	between single tests on one day	SD	0.040	0.038	0.042	0.035	**0.039**
		CV %	1.1	0.9	0.9	0.7	**0.9**
	between all tests on different days	SD	0.049	0.045	0.050	0.043	**0.047**
		CV %	1.3	1.1	1.1	0.9	**1.1**

Strength							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			27.160	27.948	33.732	29.101	
Reference Values for Evaluation			27.160	27.948	33.732	29.101	
Number Of Instruments			154	154	154	154	**154**
Inter-Instrument Variation	based on 30 tests	SD	1.001	0.787	0.737	0.785	**0.827**
		CV %	3.7	2.8	2.2	2.7	**2.8**
	based on 6 tests	SD	1.034	0.862	0.833	0.847	**0.894**
		CV %	3.8	3.1	2.5	2.9	**3.1**
	based on single tests	SD	1.171	0.970	1.018	0.963	**1.031**
		CV %	4.3	3.5	3.0	3.3	**3.5**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.292	0.284	0.320	0.291	**0.297**
		CV %	1.1	1.0	0.9	1.0	**1.0**
	between single tests on one day	SD	0.532	0.462	0.576	0.460	**0.507**
		CV %	2.0	1.7	1.7	1.6	**1.7**
	between all tests on different days	SD	0.607	0.538	0.632	0.551	**0.582**
		CV %	2.2	1.9	1.9	1.9	**2.0**

Length							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			1.1177	1.0191	1.1900	1.1414	
Reference Values for Evaluation			1.1177	1.0191	1.1900	1.1414	
Number Of Instruments			155	155	155	155	**155**
Inter-Instrument Variation	based on 30 tests	SD	0.0111	0.0107	0.0085	0.0099	**0.0100**
		CV %	1.0	1.1	0.7	0.9	**0.9**
	based on 6 tests	SD	0.0124	0.0116	0.0106	0.0120	**0.0116**
		CV %	1.1	1.1	0.9	1.0	**1.0**
	based on single tests	SD	0.0160	0.0146	0.0150	0.0152	**0.0152**
		CV %	1.4	1.4	1.3	1.3	**1.4**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.0055	0.0052	0.0054	0.0049	**0.0053**
		CV %	0.5	0.5	0.5	0.4	**0.5**
	between single tests on one day	SD	0.0105	0.0093	0.0103	0.0093	**0.0099**
		CV %	0.9	0.9	0.9	0.8	**0.9**
	between all tests on different days	SD	0.0116	0.0104	0.0114	0.0101	**0.0109**
		CV %	1.0	1.0	1.0	0.9	**1.0**

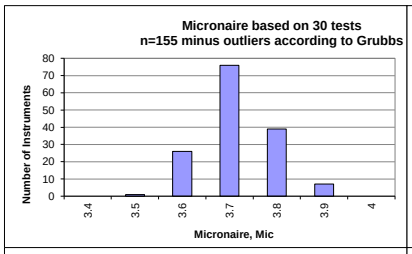
Uniformity							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			82.188	79.498	84.490	82.613	
Reference Values for Evaluation			82.188	79.498	84.490	82.613	
Number Of Instruments			154	154	154	154	**154**
Inter-Instrument Variation	based on 30 tests	SD	0.452	0.482	0.463	0.467	**0.466**
		CV %	0.5	0.6	0.5	0.6	**0.6**
	based on 6 tests	SD	0.555	0.555	0.521	0.529	**0.540**
		CV %	0.7	0.7	0.6	0.6	**0.7**
	based on single tests	SD	0.774	0.722	0.696	0.709	**0.726**
		CV %	0.9	0.9	0.8	0.9	**0.9**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.274	0.255	0.262	0.281	**0.268**
		CV %	0.3	0.3	0.3	0.3	**0.3**
	between single tests on one day	SD	0.565	0.472	0.484	0.470	**0.498**
		CV %	0.7	0.6	0.6	0.6	**0.6**
	between all tests on different days	SD	0.610	0.533	0.550	0.545	**0.560**
		CV %	0.7	0.7	0.7	0.7	**0.7**

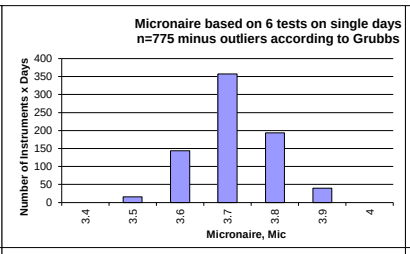
Color Rd							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			76.258	76.762	75.968	76.379	
Reference Values for Evaluation			76.258	76.762	75.968	76.379	
Number Of Instruments			151	151	151	151	**151**
Inter-Instrument Variation	based on 30 tests	SD	0.516	0.428	0.404	0.412	**0.440**
		CV %	0.7	0.6	0.5	0.5	**0.6**
	based on 6 tests	SD	0.516	0.465	0.466	0.444	**0.473**
		CV %	0.7	0.6	0.6	0.6	**0.6**
	based on single tests	SD	0.592	0.516	0.561	0.483	**0.538**
		CV %	0.8	0.7	0.7	0.6	**0.7**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.169	0.129	0.161	0.124	**0.146**
		CV %	0.2	0.2	0.2	0.2	**0.2**
	between single tests on one day	SD	0.197	0.145	0.188	0.154	**0.171**
		CV %	0.3	0.2	0.2	0.2	**0.2**
	between all tests on different days	SD	0.302	0.212	0.257	0.232	**0.251**
		CV %	0.4	0.3	0.3	0.3	**0.3**

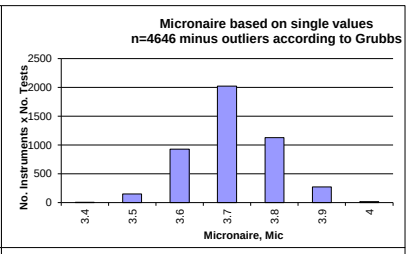
Color +b							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			11.890	12.147	13.248	9.358	
Reference Values for Evaluation			11.890	12.147	13.248	9.358	
Number Of Instruments			151	151	151	151	**151**
Inter-Instrument Variation	based on 30 tests	SD	0.286	0.260	0.286	0.216	**0.262**
		CV %	2.4	2.1	2.2	2.3	**2.3**
	based on 6 tests	SD	0.319	0.268	0.311	0.233	**0.283**
		CV %	2.7	2.2	2.3	2.5	**2.4**
	based on single tests	SD	0.349	0.310	0.346	0.254	**0.315**
		CV %	2.9	2.6	2.6	2.7	**2.7**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.121	0.090	0.099	0.082	**0.098**
		CV %	1.0	0.7	0.8	0.9	**0.8**
	between single tests on one day	SD	0.119	0.082	0.101	0.087	**0.097**
		CV %	1.0	0.7	0.8	0.9	**0.8**
	between all tests on different days	SD	0.192	0.133	0.151	0.130	**0.151**
		CV %	1.6	1.1	1.1	1.4	**1.3**

Test Result Distributions
Micronaire

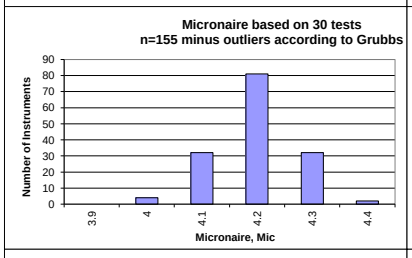
Cotton 1

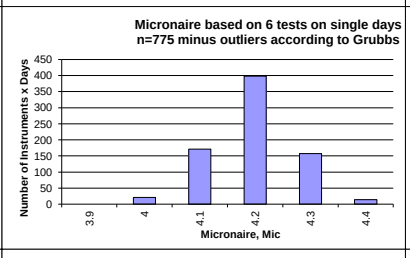


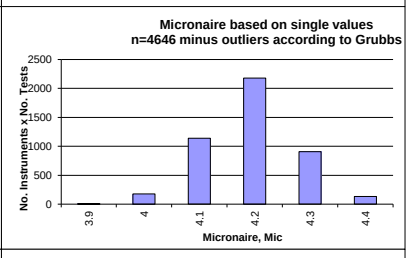




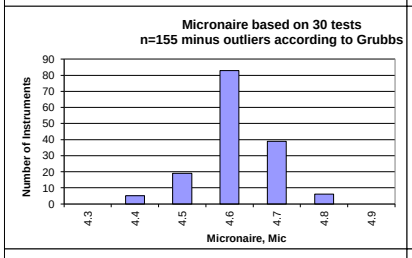
Cotton 2

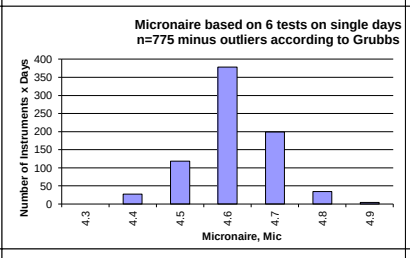


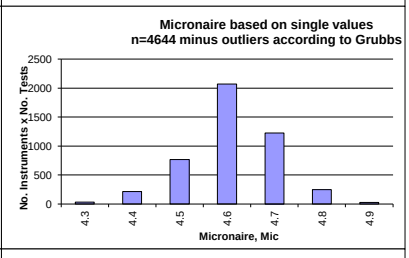




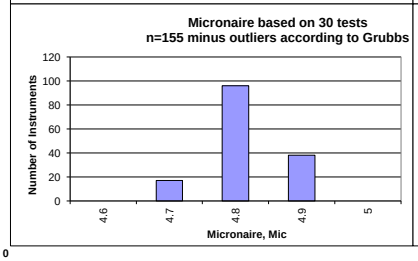
Cotton 3

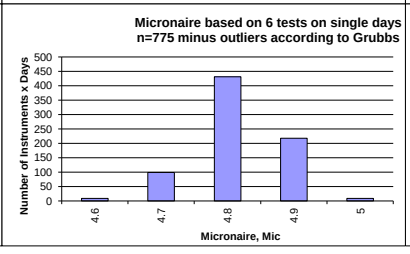


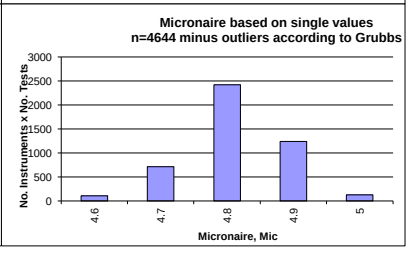




Cotton 4





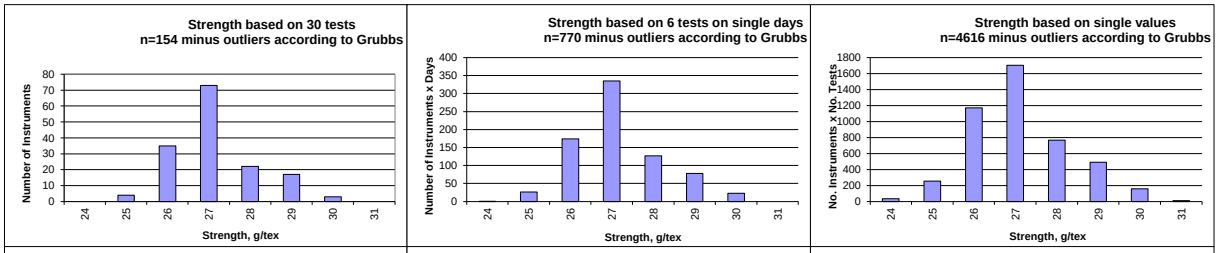


0

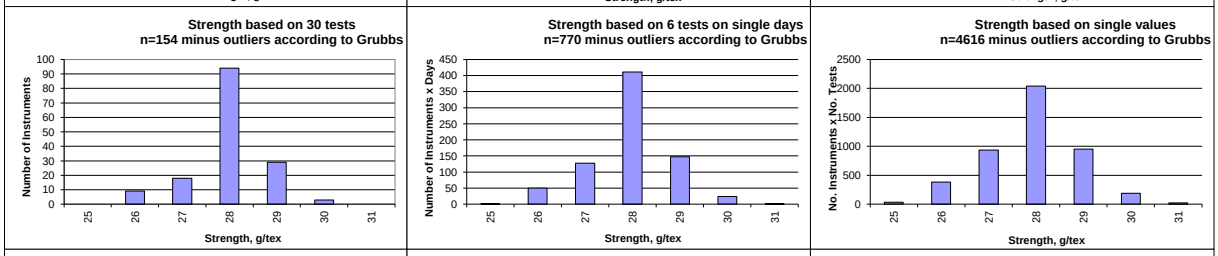
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method.)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Strength

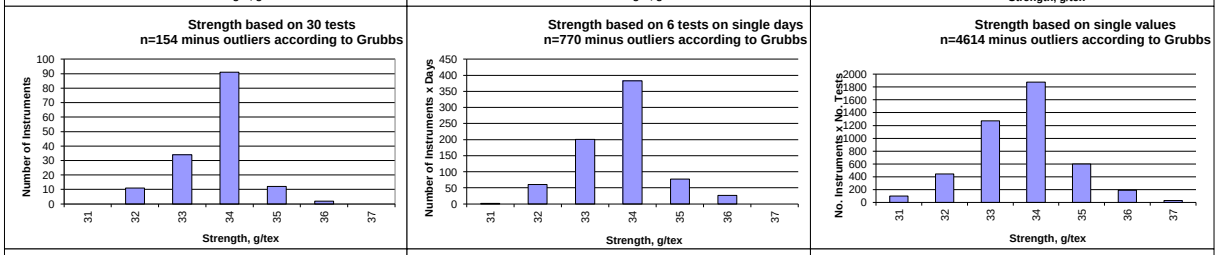
Cotton 1



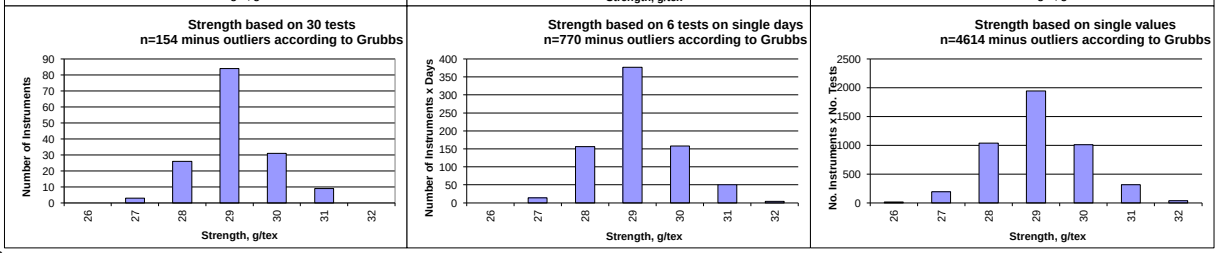
Cotton 2



Cotton 3



Cotton 4

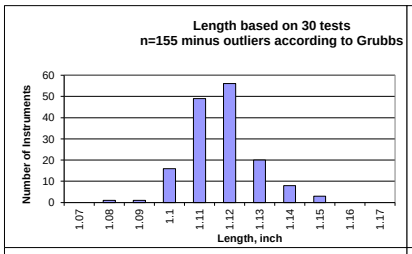


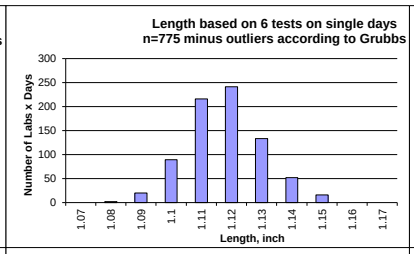
0

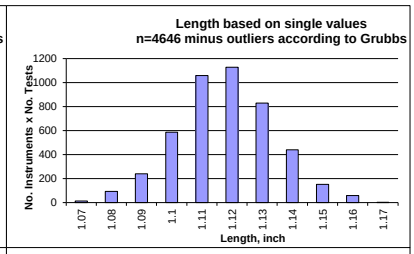
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Length

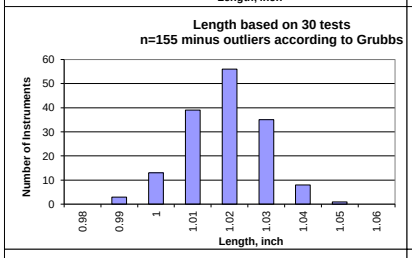
Cotton 1

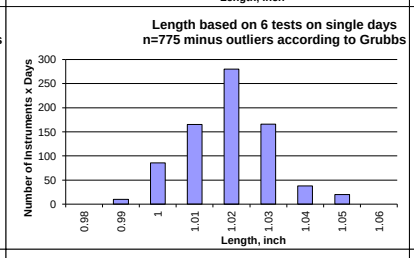


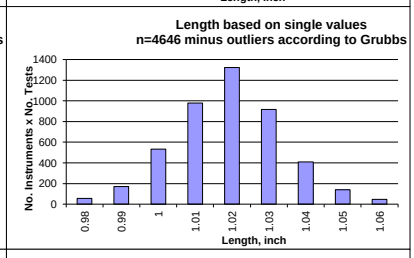




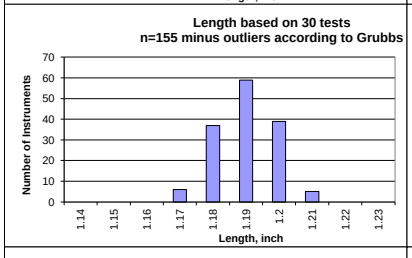
Cotton 2

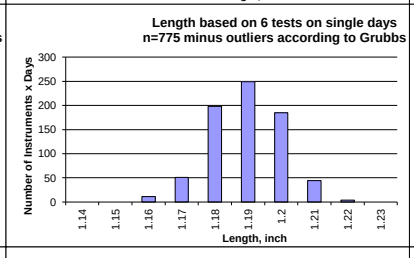


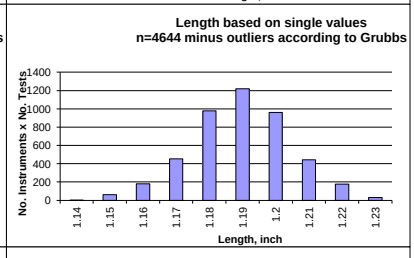




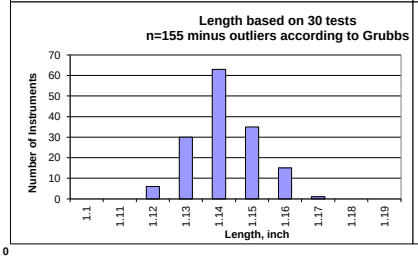
Cotton 3

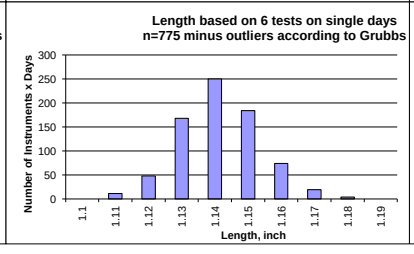


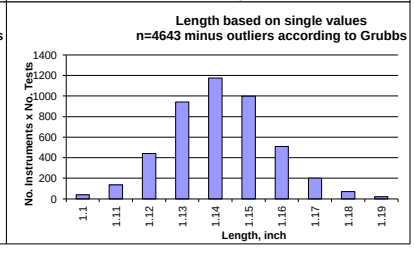




Cotton 4





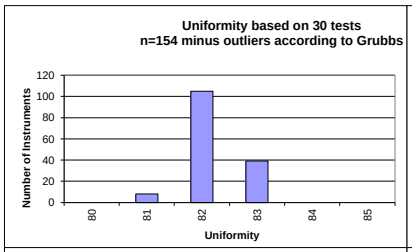


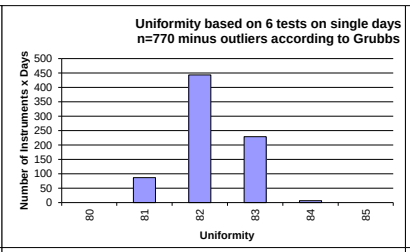
0

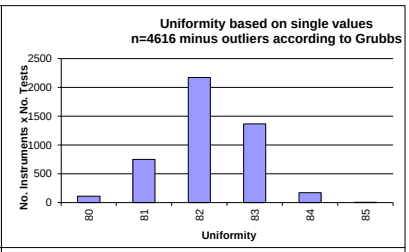
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Uniformity

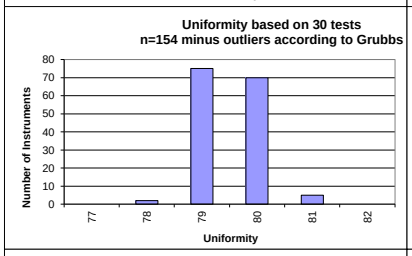
Cotton 1

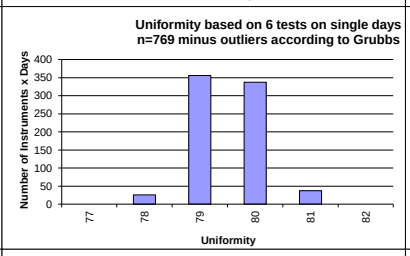


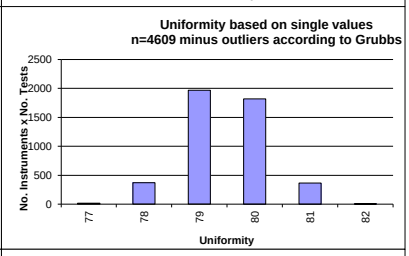




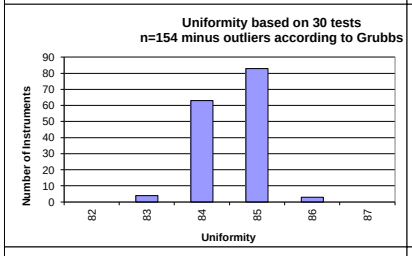
Cotton 2

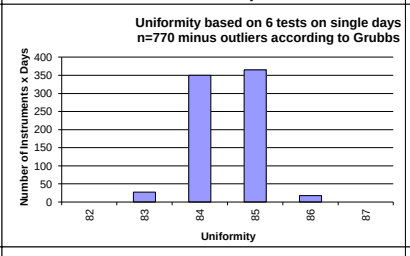


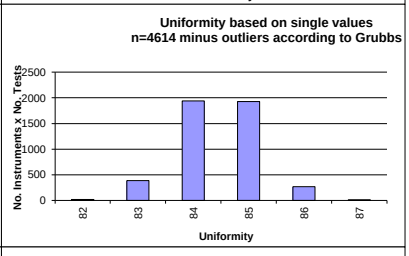




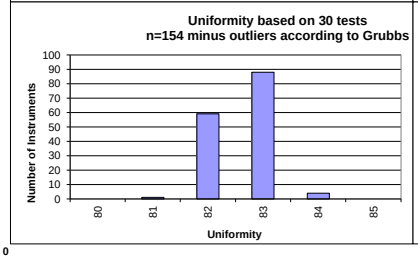
Cotton 3

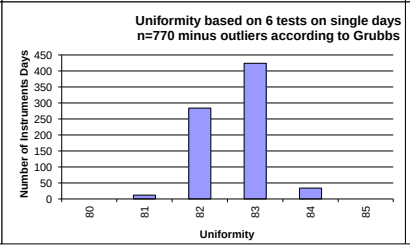


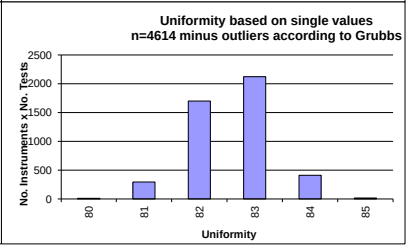




Cotton 4





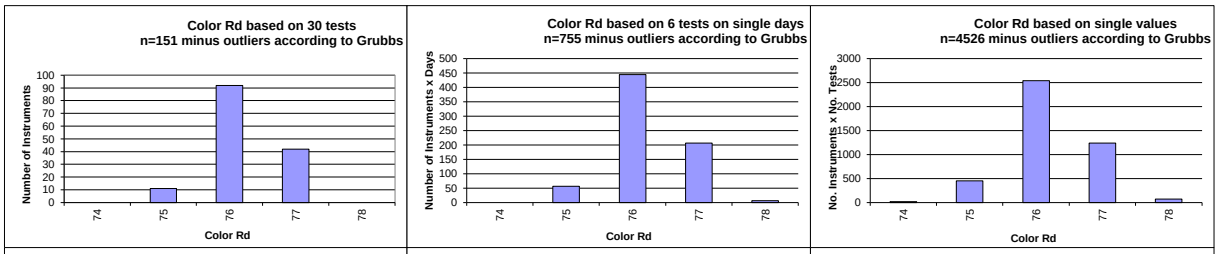


0

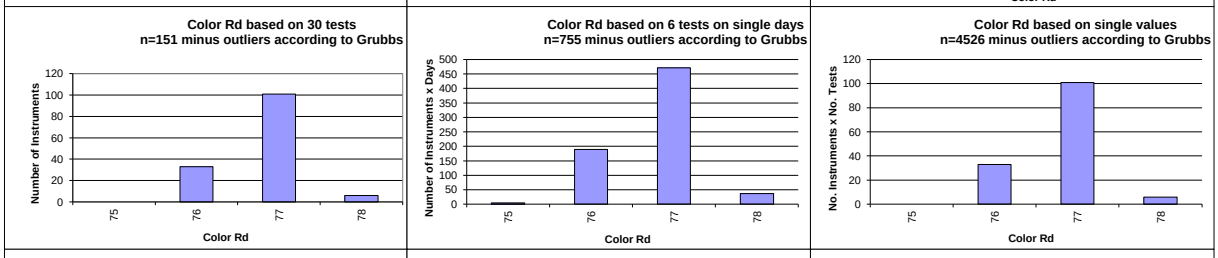
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Color Rd

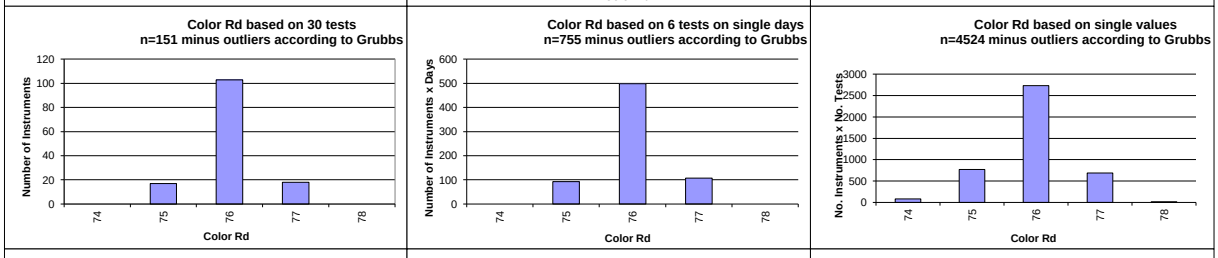
Cotton 1



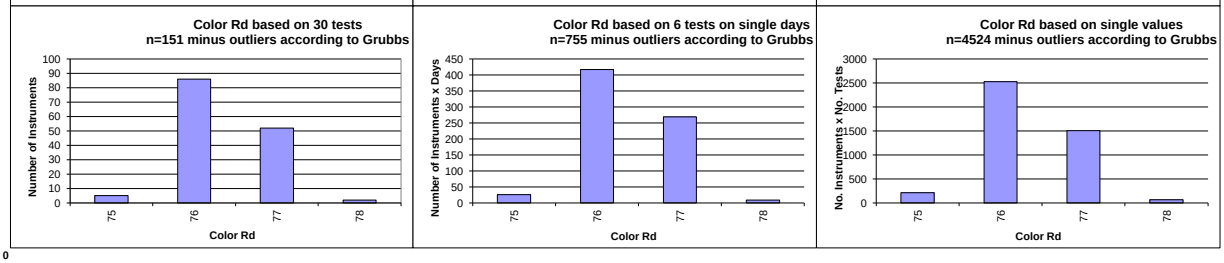
Cotton 2



Cotton 3



Cotton 4

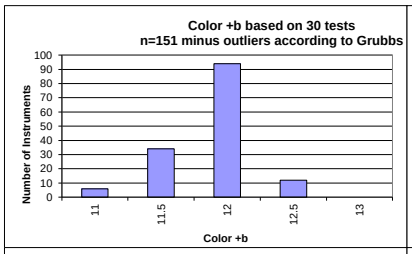


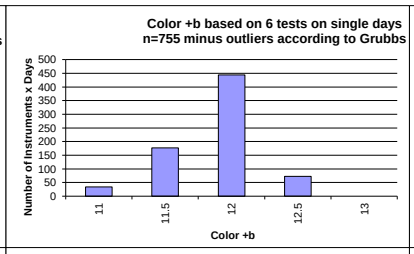
0

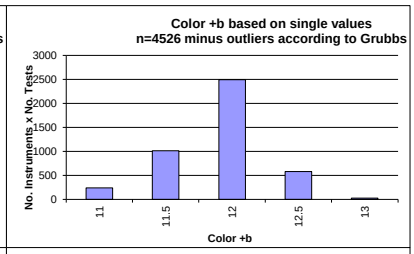
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Color +b

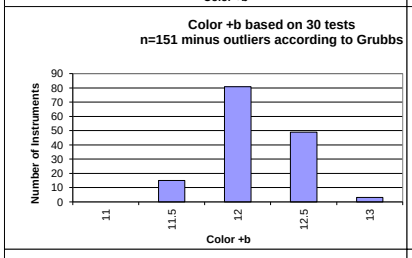
Cotton 1

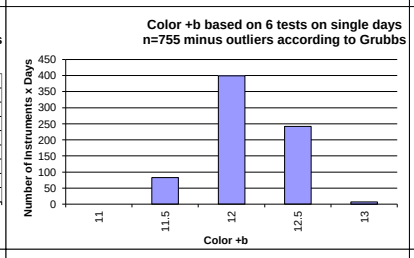


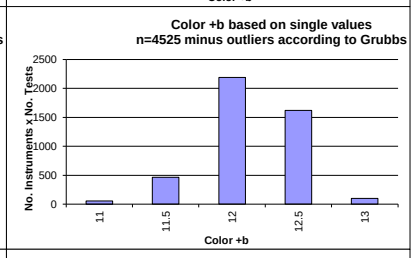




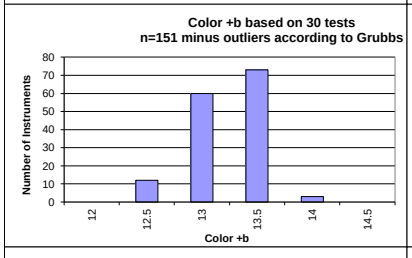
Cotton 2

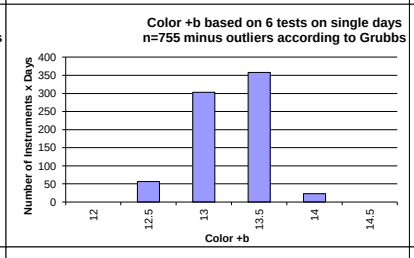


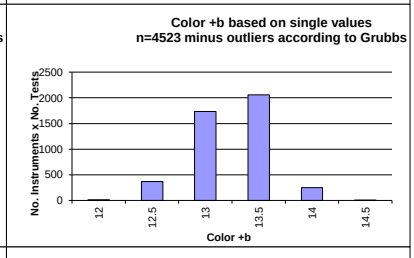




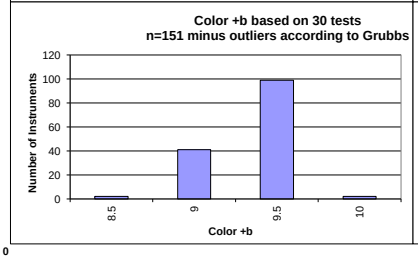
Cotton 3

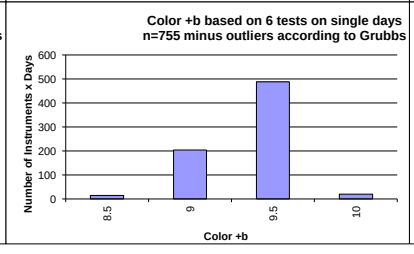


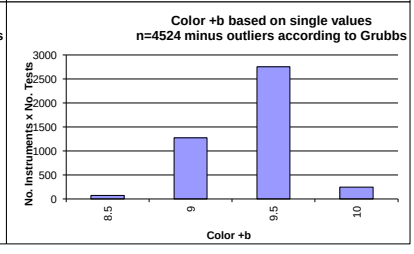




Cotton 4







0

(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Optional Parameters

Inter-Instrument Averages, Inter-Instrument Variations, Typical within-instrument Variations

Trash Count							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			31.67	15.23	18.95	12.02	
Reference Values for Evaluation			31.67	15.23	18.95	12.02	
Number Of Instruments			90	90	90	90	**90**
Inter-Instrument Variation	based on 30 tests	SD	10.75	6.37	7.50	4.79	**7.35**
		CV %	34.0	41.8	39.6	39.9	**38.8**
	based on 6 tests	SD	10.89	6.46	7.77	4.94	**7.52**
		CV %	34.4	42.4	41.0	41.1	**39.7**
	based on single tests	SD	11.63	7.06	8.27	5.35	**8.08**
		CV %	36.7	46.4	43.7	44.5	**42.8**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	2.92	1.79	1.88	1.41	**2.00**
		CV %	9.2	11.7	9.9	11.7	**10.6**
	between single tests on one day	SD	3.59	2.21	2.73	1.92	**2.61**
		CV %	11.3	14.5	14.4	16.0	**14.1**
	between all tests on different days	SD	4.75	2.88	3.32	2.39	**3.34**
		CV %	15.0	18.9	17.5	19.9	**17.8**

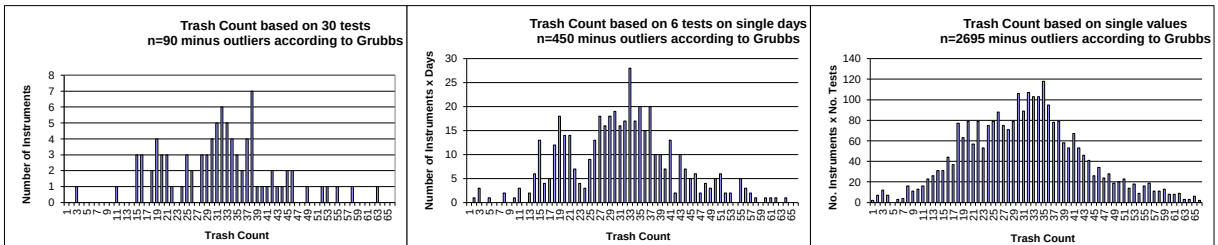
Trash Area							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			0.366	0.151	0.162	0.128	
Reference Values for Evaluation			0.366	0.151	0.162	0.128	
Number Of Instruments			90	90	90	90	**90**
Inter-Instrument Variation	based on 30 tests	SD	0.107	0.046	0.048	0.043	**0.061**
		CV %	29.3	30.6	29.4	33.3	**30.6**
	based on 6 tests	SD	0.122	0.052	0.052	0.043	**0.067**
		CV %	33.4	34.1	31.7	33.5	**33.2**
	based on single tests	SD	0.139	0.058	0.060	0.050	**0.077**
		CV %	37.9	38.4	37.0	39.1	**38.1**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.050	0.022	0.019	0.017	**0.027**
		CV %	13.5	14.5	11.8	13.6	**13.4**
	between single tests on one day	SD	0.073	0.026	0.029	0.022	**0.038**
		CV %	20.0	17.2	17.9	17.1	**18.0**
	between all tests on different days	SD	0.099	0.035	0.036	0.030	**0.050**
		CV %	27.1	23.1	22.4	23.6	**24.0**

Maturity							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			83.23	85.01	86.70	86.79	
Reference Values for Evaluation			83.23	85.01	86.70	86.79	
Number Of Instruments			92	92	92	92	**92**
Inter-Instrument Variation	based on 30 tests	SD	0.86	1.23	0.86	1.40	**1.09**
		CV %	1.0	1.4	1.0	1.6	**1.3**
	based on 6 tests	SD	0.90	1.27	0.89	1.40	**1.12**
		CV %	1.1	1.5	1.0	1.6	**1.3**
	based on single tests	SD	0.97	1.38	1.45	1.44	**1.31**
		CV %	1.2	1.6	1.7	1.7	**1.5**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.21	0.21	0.19	0.18	**0.20**
		CV %	0.3	0.2	0.2	0.2	**0.2**
	between single tests on one day	SD	0.35	0.29	0.30	0.24	**0.29**
		CV %	0.4	0.3	0.3	0.3	**0.3**
	between all tests on different days	SD	0.47	0.41	0.45	0.38	**0.43**
		CV %	0.6	0.5	0.5	0.4	**0.5**

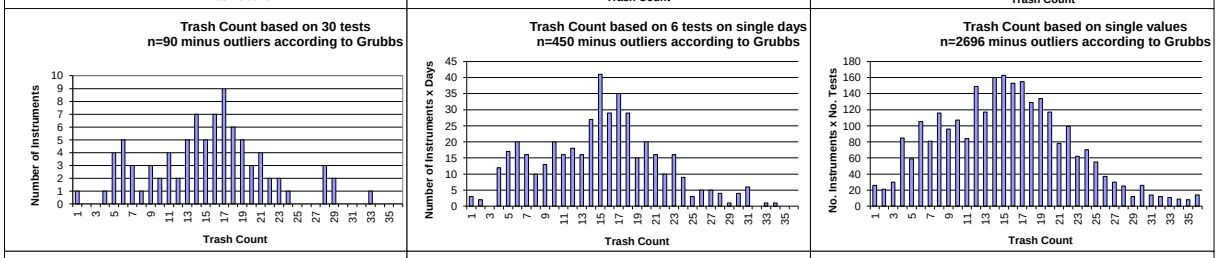
SFI							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			9.69	12.78	7.16	8.86	
Reference Values for Evaluation			9.69	12.78	7.16	8.86	
Number Of Instruments			102	102	102	102	**102**
Inter-Instrument Variation	based on 30 tests	SD	0.89	1.05	0.76	0.89	**0.90**
		CV %	9.2	8.2	10.7	10.0	**9.5**
	based on 6 tests	SD	0.92	1.12	0.77	0.90	**0.93**
		CV %	9.5	8.8	10.8	10.2	**9.8**
	based on single tests	SD	1.05	1.33	0.92	1.00	**1.08**
		CV %	10.9	10.4	12.9	11.3	**11.4**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.27	0.37	0.16	0.25	**0.26**
		CV %	2.8	2.9	2.2	2.8	**2.7**
	between single tests on one day	SD	0.53	0.61	0.32	0.39	**0.46**
		CV %	5.5	4.8	4.5	4.4	**4.8**
	between all tests on different days	SD	0.62	0.70	0.35	0.48	**0.54**
		CV %	6.4	5.5	4.9	5.4	**5.5**

Test Result Distributions
Trash Count

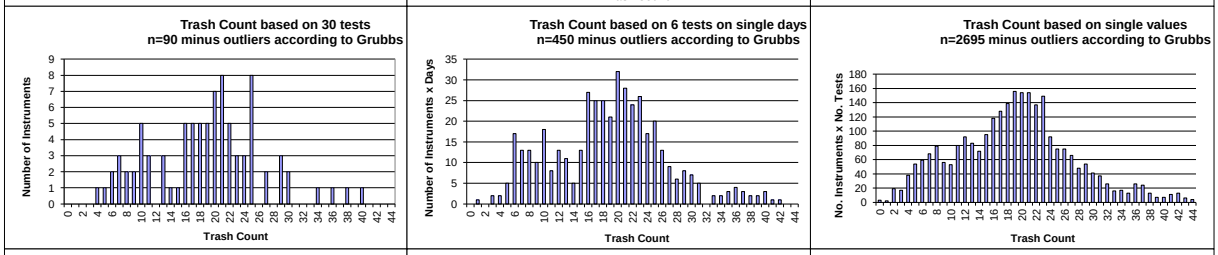
Cotton 1



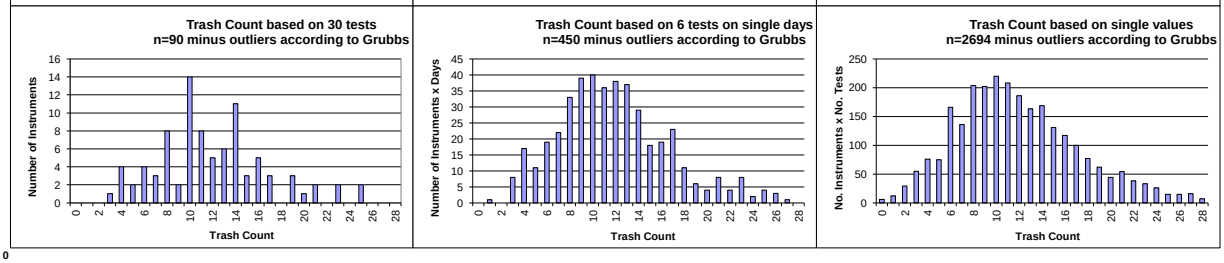
Cotton 2



Cotton 3



Cotton 4

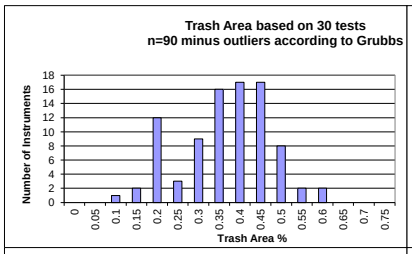


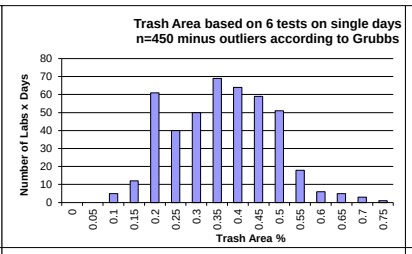
0

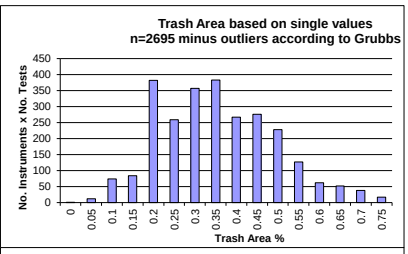
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Trash Area

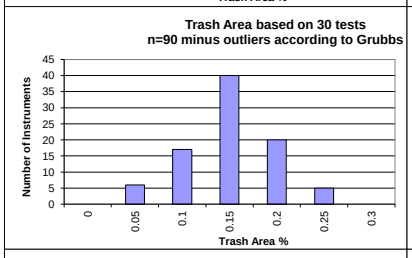
Cotton 1

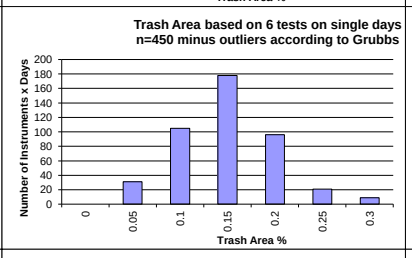


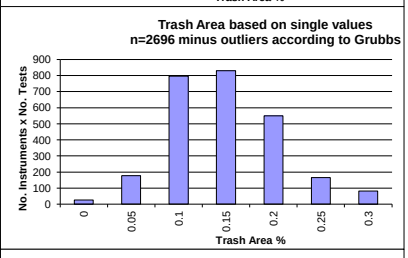




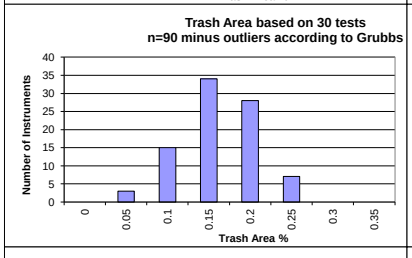
Cotton 2

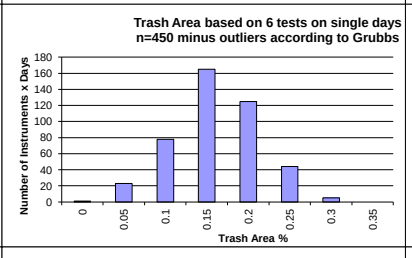


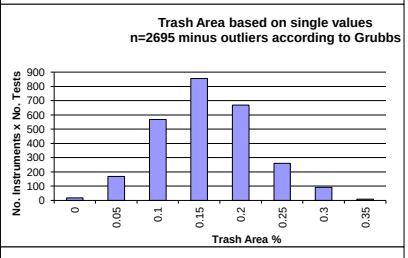




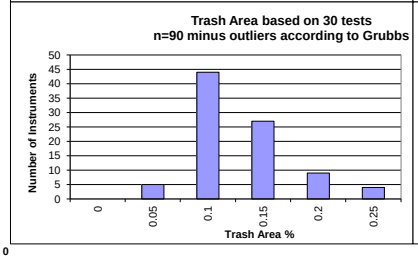
Cotton 3

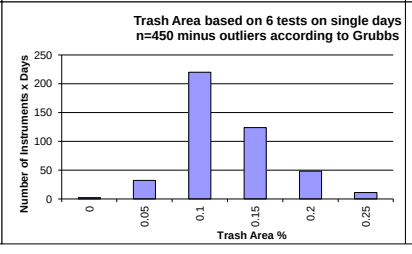


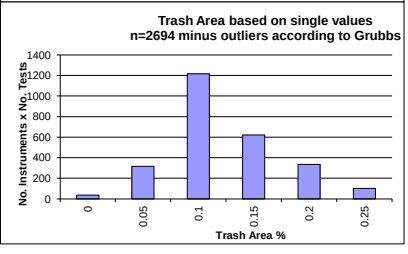




Cotton 4





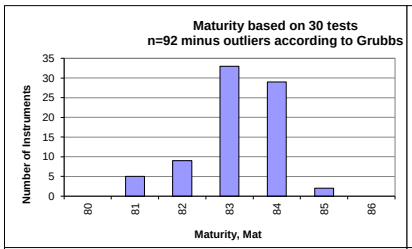


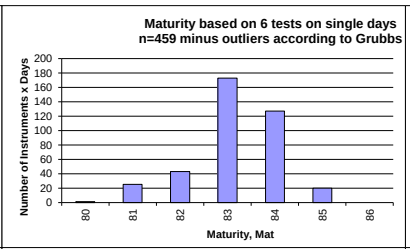
0

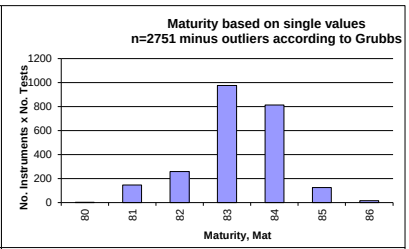
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Maturity

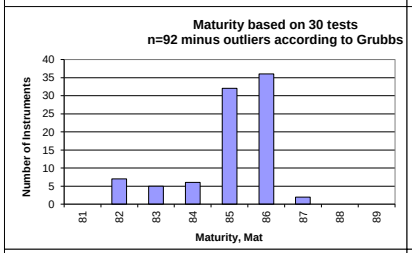
Cotton 1

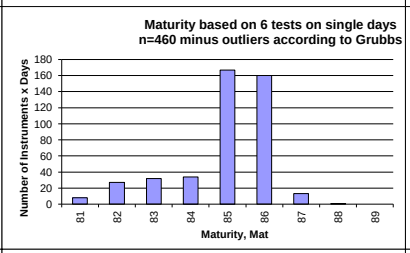


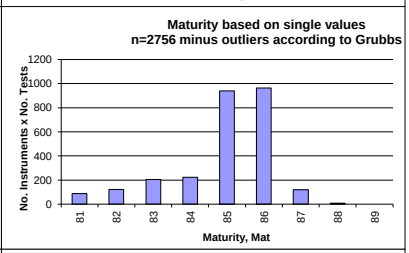




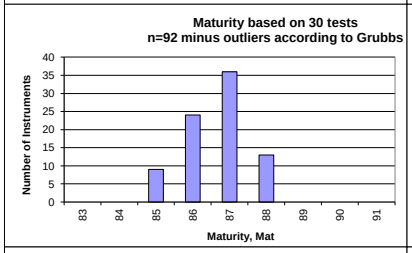
Cotton 2

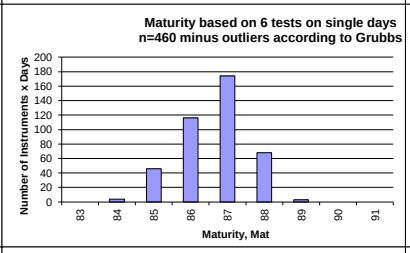


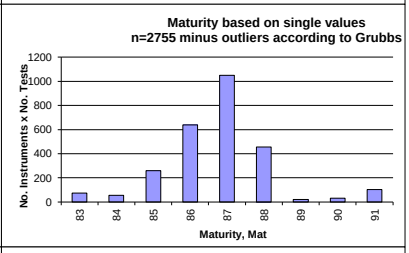




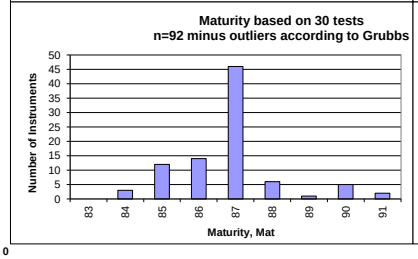
Cotton 3

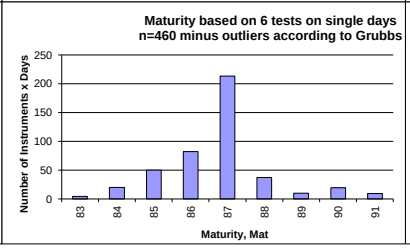


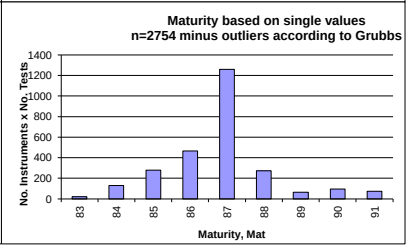




Cotton 4





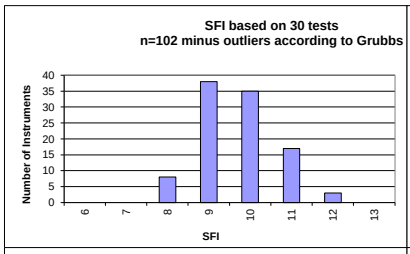


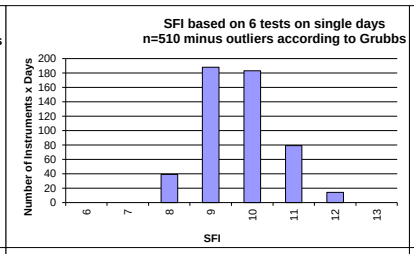
0

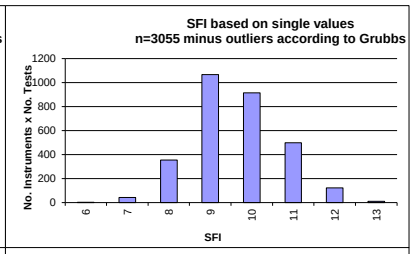
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method.)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
SFI

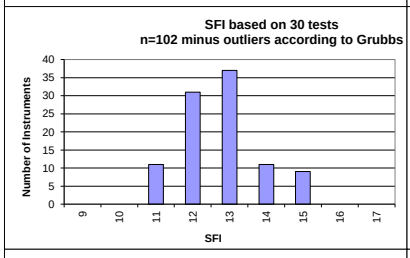
Cotton 1

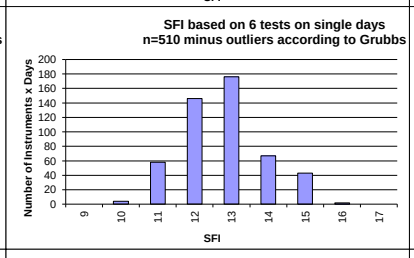


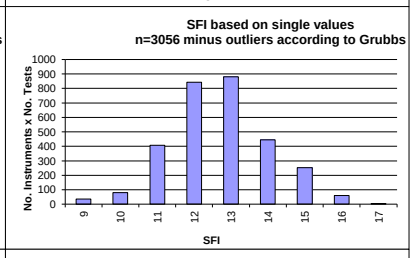




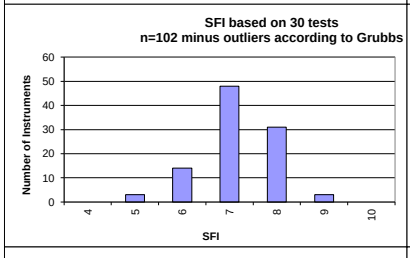
Cotton 2

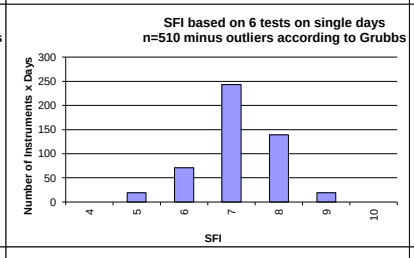


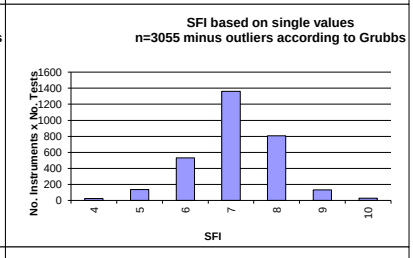




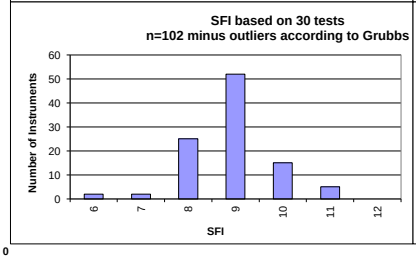
Cotton 3

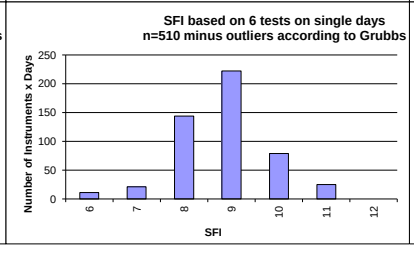


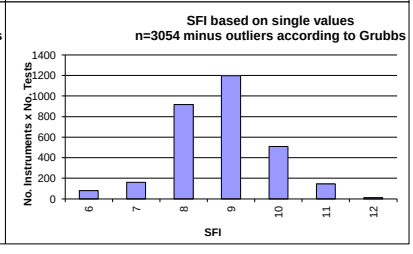




Cotton 4







0

(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

International Cotton Advisory Committee

CSITC
Global - Round Trial 2017 - 4
General Evaluation

Section One: Result Distribution
Section Two: Instrument Evaluation
Section Three: Within Limits Evaluation

Section Two: Instrument Evaluation

Content:

-Evaluation of Combined Parameters
-Evaluation of Single Parameters

Executed By:
Faserinstitut Bremen e.V., Bremen, Germany*
USDA-AMS, Memphis, TN, USA

System Provided by:
Generation 10 Limited

This report is an outcome of the Project CFC/ICAC/33 – CSITC,
which benefitted from support from the Common Fund for Commodities
and the European Union, partners in Commodity Development.

** Faserinstitut Bremen are a Cooperation Partner with ICA Bremen*

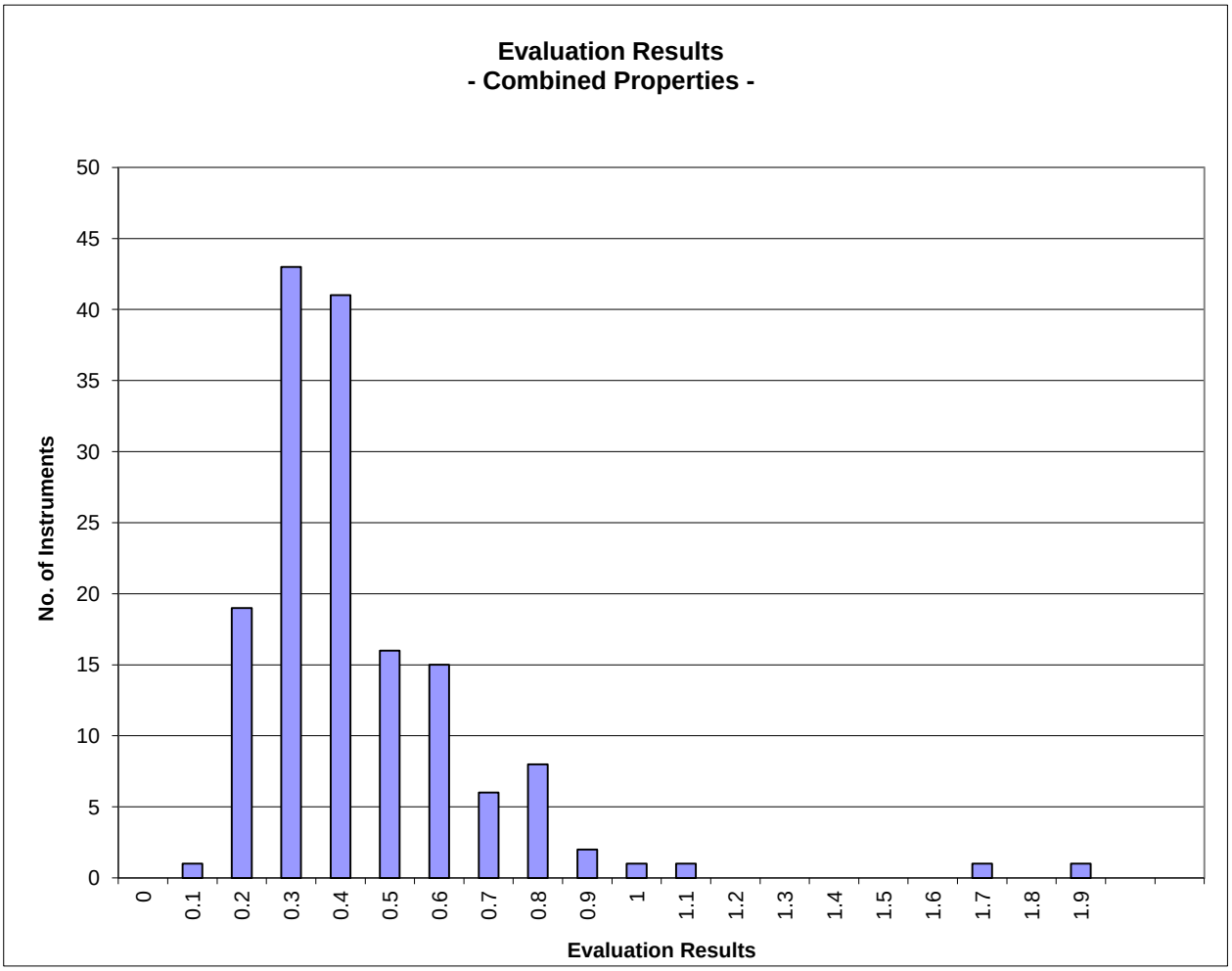
Instrument Evaluation

- Graph of Combined Properties -

According to ICAC CSITC Task Force Recommendations

Global - Round Trial 2017 - 4

		Evaluation Combined Prop.
Statistics	Average	0.44
	Median	0.38
	Best Instrument	0.15
	Worst Instrument	1.91



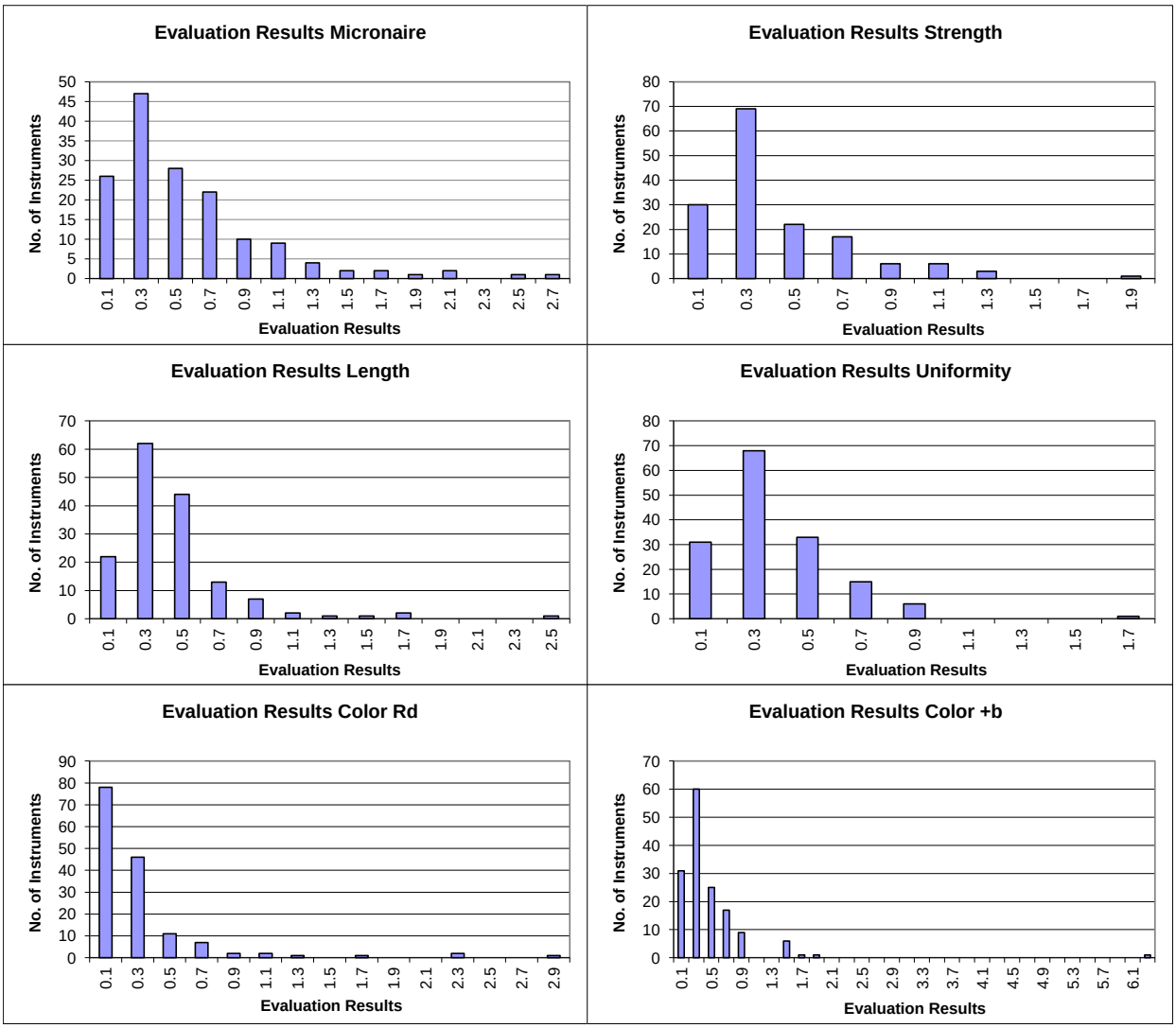
x-Axis shows midpoints of classes

The evaluation results are entered based on the unrounded values

(classes are defined as > lower limit and <= upper limit)

Instrument Evaluation
- Graph of Single Properties -
According to ICAC CSITC Task Force Recommendations
Global - Round Trial 2017 - 4

		Evaluation Micronaire	Evaluation Strength	Evaluation Length	Evaluation Uniformity	Evaluation Color Rd	Evaluation Color +b
Statistics	Average	0.58	0.43	0.44	0.38	0.31	0.48
	Median	0.43	0.33	0.37	0.34	0.20	0.34
	Best Instr.	0.06	0.06	0.07	0.08	0.05	0.09
	Worst Instr.	2.79	1.95	2.60	1.67	2.85	6.31



x-Axis shows midpoints of classes
The evaluation results are entered based on the unrounded values

International Cotton Advisory Committee

CSITC
Global - Round Trial 2017 - 4
General Evaluation

Section One: Result Distribution
Section Two: Instrument Evaluation
Section Three: Within Limits Evaluation

Section Three: Within Limits Evaluation

Content:

-Based on Average of 30 Test Results
-Based on Single Test Results

Executed By:
Faserinstitut Bremen e.V., Bremen, Germany*
USDA-AMS, Memphis, TN, USA

System Provided by:
Generation 10 Limited

This report is an outcome of the Project CFC/ICAC/33 – CSITC,
which benefitted from support from the Common Fund for Commodities
and the European Union, partners in Commodity Development.

** Faserinstitut Bremen are a Cooperation Partner with ICA Bremen*

Within Limits Evaluation

Based on average of 30 test results for each sample

	Micronaire	Strength	Length	Uniformity	Color Rd	Color +b
Limits	0.20	2.0	0.030	2.0	1.5	0.5
	units	g/tex	inch	%	units	units
Average % Results within Limits	97.6	95.3	97.1	100.0	94.7	89.9
Completely within limits	94.8	88.3	92.3	100.0	92.7	76.8
% of Instruments ≥75% within limits	96.8	94.8	97.4	100.0	93.4	91.4
% of Instruments ≥50% within limits	98.7	98.7	98.7	100.0	96.0	94.0

Percentage of Results Within Limits						
Instrument	**Micronaire**	**Strength**	**Length**	**Uniformity**	**Color Rd**	**Color +b**
GL174-002-01	100	100	100	100	100	100
GL174-002-02	100	100	100	100	100	100
GL174-003-01	100	100	100	100	100	100
GL174-004-01	100	100	100	100	100	100
GL174-005-01	100	100	100	100	100	100
GL174-005-04	100	100	100	100	100	75
GL174-005-05	100	100	100	100	100	100
GL174-005-06	100	100	100	100	100	100
GL174-007-01	100	100	100	100	100	100
GL174-007-02	100	100	100	100	100	100
GL174-007-04	100	100	100	100	100	100
GL174-008-09	100	100	100	100	100	75
GL174-008-11	100	100	100	100	100	75
GL174-009-02	100	100	100	100	100	100
GL174-010-02	100	100	100	100	100	100
GL174-011-01	75	100	100	100	100	100
GL174-013-03	100	100	100	100	100	100
GL174-014-01	100	100	100	100	100	75
GL174-014-05	75	100	100	100	100	75
GL174-015-13	100	100	100	100		
GL174-016-01	100	100	100	100	100	75
GL174-017-05	100	100	100	100	100	100
GL174-017-12	100	100	100	100	100	100
GL174-018-01	100	100	100	100	100	100
GL174-019-20	100	100	100	100	100	75
GL174-019-24	100	100	100	100	100	100
GL174-020-01	100	100	100	100	100	75
GL174-020-06	100	100	100	100	100	75
GL174-021-03	100	100	100	100	100	25
GL174-022-03	100	100	100	100	100	100
GL174-023-01	100	100	100	100	100	100
GL174-025-31	100	100	100	100	100	75
GL174-025-36	100	100	100	100	100	75
GL174-026-02	100	100	100	100		

GL174-026-03	100	100	100	100	100	100
GL174-027-01	100	100	100	100	100	75
GL174-028-01	100	75	100	100	100	100
GL174-030-01	100	100	100	100	100	100
GL174-031-01	100	100	100	100	100	100
GL174-033-01	100	100	100	100	100	100
GL174-034-01	100	100	100	100	100	100
GL174-034-02	100	100	100	100	100	100
GL174-035-04	100	100	100	100	100	100
GL174-037-01	100	100	100	100	100	100
GL174-038-01	100	100	100	100	100	100
GL174-039-01	100	100	100	100	100	100
GL174-040-01	100	0	100	100	0	100
GL174-041-06	100	75	100	100	100	100
GL174-042-01	100	75	100	100	100	100
GL174-043-01	100	100	100	100	100	100
GL174-043-04	100	100	100	100	100	100
GL174-043-05	100	100	100	100	100	100
GL174-044-02	100	100	100	100	100	100
GL174-045-06	100	100	100	100	100	100
GL174-045-07	100	100	100	100	100	100
GL174-046-05	100		50			
GL174-048-01	100	75	100	100	100	100
GL174-048-02	100	100	100	100	100	100
GL174-049-01	100	100	100	100	100	100
GL174-050-01	100	100	100	100	100	100
GL174-051-01	100	100	100	100	100	100
GL174-051-02	100	100	100	100	100	100
GL174-052-01	100	100	100	100	100	50
GL174-053-01	100	100	100	100	100	100
GL174-054-01	100	100	100	100	100	100
GL174-055-18	100	100	100	100	100	100
GL174-056-01	100	100	100	100	100	100
GL174-057-01	100	100	100	100	100	100
GL174-058-01	100	100	100	100	100	100
GL174-059-01	100	75	100	100	0	100
GL174-060-01	100	100	100	100	100	100
GL174-061-01	100	100	100	100	0	100
GL174-062-01	100	100	100	100	100	100
GL174-062-03	100	100	100	100	100	100
GL174-063-02	100	75	100	100	100	100
GL174-064-01	100	100	100	100	100	100
GL174-065-01	100	75	75	100	100	100
GL174-066-01	100	100	100	100	100	100
GL174-066-02	100	100	100	100	100	100
GL174-067-01	100	100	100	100	100	100
GL174-069-02	100	25	100	100	100	100
GL174-070-01	100	75	100	100	100	0
GL174-071-01	25	100	100	100	50	100
GL174-072-01	100	100	100	100	100	50
GL174-073-01	100	100	100	100	100	75
GL174-075-01	100	100	100	100	100	100
GL174-076-13	100	100	100	100	100	100
GL174-076-19	100	100	100	100	100	100
GL174-077-01	100	100	100	100	100	100

GL174-078-01	100	75	100	100	100	75
GL174-079-03	100	100	100	100	100	50
GL174-079-04	100	100	100	100	100	25
GL174-079-05	100	100	100	100	100	25
GL174-080-02	100	100	100	100	100	100
GL174-080-03	100	100	100	100	100	100
GL174-081-03	100	100	100	100	100	100
GL174-081-06	100	100	100	100	100	75
GL174-082-02	100	100	100	100	100	75
GL174-082-03	100	100	75	100	100	0
GL174-082-04	100	100	25	100	50	0
GL174-082-06	100	100	100	100	0	100
GL174-082-07	100	100	100	100	50	100
GL174-082-08	100	100	100	100	100	100
GL174-083-60	100	100	100	100	100	100
GL174-083-61	100	100	100	100	100	100
GL174-084-01	100	100	75	100	100	100
GL174-086-37	100	100	100	100	100	100
GL174-086-39	100	100	100	100	100	100
GL174-087-03	100	100	75	100	100	100
GL174-088-01	50	75	100	100	100	75
GL174-089-01	100	100	100	100	100	100
GL174-089-02	100	100	100	100	100	100
GL174-091-01	100	50	100	100	100	100
GL174-092-01	100	50	100	100	100	100
GL174-093-01	100	100	100	100	100	100
GL174-093-02	100	100	100	100	100	75
GL174-093-06	100	100	100	100	100	100
GL174-094-01	100	100	100	100	100	100
GL174-094-05	25	100	75	100	100	100
GL174-094-07	50	100	100	100	100	100
GL174-094-10	100	100	75	100	100	100
GL174-095-01	100	50	100	100	100	75
GL174-095-02	100	50	100	100	100	75
GL174-097-32	100	100	100	100	100	100
GL174-097-33	100	100	100	100	100	100
GL174-098-01	100	100	100	100	100	100
GL174-098-02	100	100	100	100	100	100
GL174-099-02	100	100	100	100	100	100
GL174-100-01	100	100	100	100	100	100
GL174-100-02	100	100	100	100	100	100
GL174-101-01	75	50	100	100		
GL174-102-01	100	100	75	100	100	100
GL174-102-02	100	100	100	100	100	100
GL174-102-03	100	100	75	100	50	100
GL174-102-04	100	100	100	100	75	100
GL174-103-01	100	100	100	100	100	25
GL174-103-02	100	100	100	100	25	25
GL174-103-03	100	100	100	100	100	75
GL174-103-04	100	100	100	100	100	75
GL174-104-04	100	100	25	100	100	50
GL174-104-05	100	100	50	100	100	100
GL174-104-06	100	100	100	100	100	100
GL174-105-03	100	100	100	100	100	100
GL174-106-01	100	100	100	100	100	100

GL174-106-02	100	100	100	100	100	100
GL174-107-01	50	50	100	100	0	0
GL174-110-01	100	100	100	100	100	100
GL174-111-01	100	100	100	100	100	100
GL174-111-02	100	100	100	100	100	100
GL174-111-03	100	100	100	100	100	100
GL174-111-04	100	100	100	100	100	100
GL174-111-05	100	100	100	100	100	100
GL174-111-06	100	100	100	100	100	100
GL174-111-07	100	100	100	100	100	100
GL174-111-08	100	100	100	100	100	100

Within Limits Evaluation

Based on Single Test Results

	Micronaire	Strength	Length	Uniformity	Color Rd	Color +b
Limits	0.20	2.0	0.030	2.0	1.5	0.5
	units	g/tex	inch	%	units	units
Average % Results within Limits	96.0	91.9	95.3	98.0	93.7	85.5
% of Instruments 100% within limits	56.8	33.8	40.0	51.3	66.9	23.8
% of Instruments ≥95% within limits	80.0	63.0	79.4	92.2	84.1	47.0
% of Instruments ≥75% within limits	96.1	88.3	95.5	99.4	92.1	78.8
% of Instruments ≥65% within limits	97.4	95.5	97.4	99.4	94.0	89.4
% of Instruments ≥50% within limits	98.7	98.1	98.7	100.0	94.7	93.4

Percentage of Results Within Limits						
Instrument	**Micronaire**	**Strength**	**Length**	**Uniformity**	**Color Rd**	**Color +b**
GL174-002-01	100	100	100	100	100	100
GL174-002-02	100	100	100	100	100	100
GL174-003-01	100	100	100	100	100	94
GL174-004-01	100	93	98	100	100	100
GL174-005-01	100	100	100	100	100	91
GL174-005-04	100	100	100	100	100	79
GL174-005-05	100	100	100	100	99	90
GL174-005-06	100	100	100	100	100	98
GL174-007-01	99	96	99	97	90	87
GL174-007-02	100	96	98	99	100	100
GL174-007-04	100	98	98	100	100	97
GL174-008-09	100	100	100	100	100	83
GL174-008-11	100	100	100	100	100	88
GL174-009-02	94	85	92	96	98	98
GL174-010-02	99	100	100	99	100	100
GL174-011-01	75	93	100	100	100	100
GL174-013-03	100	95	96	99	100	95
GL174-014-01	97	93	97	98	100	73
GL174-014-05	69	92	99	98	100	68
GL174-015-13	97	67	72	79		
GL174-016-01	100	99	98	99	100	72
GL174-017-05	100	96	100	100	100	98
GL174-017-12	100	99	100	100	100	100
GL174-018-01	100	78	84	98	100	82
GL174-019-20	100	98	100	100	100	69
GL174-019-24	100	93	100	100	100	88
GL174-020-01	99	100	98	100	100	75
GL174-020-06	100	100	97	100	100	73
GL174-021-03	93	100	97	97	100	58
GL174-022-03	98	99	95	96	100	95

GL174-023-01	100	95	100	100	100	93
GL174-025-31	100	93	97	96	100	74
GL174-025-36	100	99	100	97	100	80
GL174-026-02	100	81	100	97		
GL174-026-03	100	99	94	100	100	100
GL174-027-01	100	73	95	98	100	78
GL174-028-01	100	75	100	100	100	100
GL174-030-01	96	98	98	100	97	65
GL174-031-01	100	93	100	100	100	94
GL174-033-01	98	98	96	97	100	99
GL174-034-01	100	100	100	100	99	97
GL174-034-02	100	100	100	100	100	83
GL174-035-04	99	98	96	91	94	95
GL174-037-01	100	97	100	100	100	93
GL174-038-01	100	100	100	100	100	100
GL174-039-01	95	91	96	98	100	93
GL174-040-01	100	26	78	87	36	91
GL174-041-06	88	74	96	99	97	93
GL174-042-01	98	80	92	98	93	78
GL174-043-01	100	100	100	100	100	100
GL174-043-04	100	100	100	100	100	100
GL174-043-05	100	100	100	98	100	100
GL174-044-02	96	91	93	91	91	96
GL174-045-06	100	91	100	100	100	91
GL174-045-07	100	88	100	100	100	100
GL174-046-05	100		46			
GL174-048-01	86	74	96	99	96	93
GL174-048-02	94	85	99	99	98	87
GL174-049-01	97	78	98	96	100	100
GL174-050-01	100	91	99	99	100	88
GL174-051-01	100	98	100	100	100	100
GL174-051-02	100	96	97	100	100	100
GL174-052-01	98	91	93	82	100	70
GL174-053-01	100	98	100	98	100	94
GL174-054-01	100	96	98	99	100	97
GL174-055-18	100	96	97	93	100	81
GL174-056-01	100	100	100	100	100	93
GL174-057-01	99	91	100	99	100	99
GL174-058-01	100	83	98	99	100	87
GL174-059-01	100	70	91	63	0	93
GL174-060-01	98	100	97	98	100	93
GL174-061-01	82	87	96	98	1	96
GL174-062-01	100	100	100	99	100	100
GL174-062-03	96	100	100	100	100	100
GL174-063-02	99	71	87	98	99	98
GL174-064-01	97	88	99	99	100	92
GL174-065-01	93	61	71	94	76	58
GL174-066-01	100	100	100	100	100	99
GL174-066-02	100	100	100	100	100	100
GL174-067-01	100	98	100	100	100	100
GL174-069-02	93	53	96	99	98	98
GL174-070-01	100	75	100	100	100	0
GL174-071-01	43	86	95	99	41	97
GL174-072-01	100	99	99	97	96	62
GL174-073-01	100	100	100	96	100	68

GL174-075-01	100	99	88	100	95	84
GL174-076-13	98	97	100	100	100	98
GL174-076-19	100	98	100	100	99	94
GL174-077-01	89	89	89	100	95	68
GL174-078-01	100	74	96	98	77	44
GL174-079-03	92	100	100	100	100	35
GL174-079-04	88	100	98	99	100	38
GL174-079-05	91	99	98	97	100	31
GL174-080-02	99	99	99	100	100	100
GL174-080-03	98	100	100	100	100	99
GL174-081-03	99	100	100	100	100	90
GL174-081-06	98	100	100	100	100	85
GL174-082-02	98	95	98	98	80	68
GL174-082-03	78	86	68	95	95	26
GL174-082-04	88	77	63	99	49	16
GL174-082-06	94	97	89	95	2	80
GL174-082-07	90	99	97	98	55	97
GL174-082-08	99	99	93	96	100	100
GL174-083-60	100	93	100	99	100	100
GL174-083-61	100	93	99	100	100	100
GL174-084-01	100	88	79	84	100	98
GL174-086-37	100	83	99	100	100	100
GL174-086-39	100	97	100	100	99	100
GL174-087-03	99	94	85	98	99	98
GL174-088-01	55	73	89	93	98	69
GL174-089-01	100	96	99	100	100	98
GL174-089-02	100	100	98	100	100	97
GL174-091-01	98	70	92	99	94	78
GL174-092-01	91	62	98	100	93	89
GL174-093-01	100	100	100	100	100	83
GL174-093-02	100	100	100	100	100	82
GL174-093-06	100	100	99	100	100	86
GL174-094-01	93	100	93	100	100	100
GL174-094-05	36	100	86	99	100	100
GL174-094-07	58	100	83	99	100	95
GL174-094-10	88	100	88	99	100	98
GL174-095-01	94	48	99	99	99	64
GL174-095-02	94	48	99	99	99	64
GL174-097-32	99	98	99	100	99	99
GL174-097-33	93	98	99	100	100	99
GL174-098-01	100	98	98	98	100	71
GL174-098-02	97	97	96	99	89	81
GL174-099-02	100	88	97	100	100	100
GL174-100-01	100	96	98	100	98	90
GL174-100-02	100	100	99	100	100	84
GL174-101-01	75	58	100	100		
GL174-102-01	100	98	87	100	96	100
GL174-102-02	100	94	100	100	100	100
GL174-102-03	99	99	83	97	68	100
GL174-102-04	100	100	98	100	68	100
GL174-103-01	99	100	95	95	66	28
GL174-103-02	100	95	97	96	47	22
GL174-103-03	96	100	97	100	85	63
GL174-103-04	98	100	99	100	97	67
GL174-104-04	100	90	47	82	100	69