International Cotton Advisory Committee

CSITC
Global - Round Trial 2015 - 3
General Evaluation

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

Section One: Result Distribution

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- -Distribution Graphs

Optional Parameters
- -Summary Table
- -Distribution Graphs

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

Global - Round Trial 2015 - 3

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

Micronaire							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			4.328	4.130	4.606	5.069	
Reference Values for Evaluation			4.328	4.130	4.606	5.069	
Number Of Instruments			146	146	146	146	**146**
Inter-Instrument Variation	based on 30 tests	SD	0.065	0.060	0.045	0.047	**0.054**
		CV %	1.5	1.5	1.0	0.9	**1.2**
	based on 6 tests	SD	0.070	0.063	0.051	0.053	**0.059**
		CV %	1.6	1.5	1.1	1.0	**1.3**
	based on single tests	SD	0.080	0.074	0.062	0.067	**0.071**
		CV %	1.8	1.8	1.3	1.3	**1.6**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.024	0.020	0.020	0.023	**0.022**
		CV %	0.6	0.5	0.4	0.5	**0.5**
	between single tests on one day	SD	0.041	0.038	0.034	0.037	**0.037**
		CV %	0.9	0.9	0.7	0.7	**0.8**
	between all tests on different days	SD	0.048	0.044	0.041	0.045	**0.044**
		CV %	1.1	1.1	0.9	0.9	**1.0**

Strength							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			34.199	23.597	31.147	25.971	
Reference Values for Evaluation			34.199	23.597	31.147	25.971	
Number Of Instruments			146	146	146	146	**146**
Inter-Instrument Variation	based on 30 tests	SD	0.595	0.654	0.767	0.663	**0.670**
		CV %	1.7	2.8	2.5	2.6	**2.4**
	based on 6 tests	SD	0.724	0.738	0.841	0.735	**0.760**
		CV %	2.1	3.1	2.7	2.8	**2.7**
	based on single tests	SD	0.958	0.870	0.978	0.887	**0.923**
		CV %	2.8	3.7	3.1	3.4	**3.3**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.311	0.280	0.321	0.264	**0.294**
		CV %	0.9	1.2	1.0	1.0	**1.0**
	between single tests on one day	SD	0.586	0.445	0.507	0.472	**0.503**
		CV %	1.7	1.9	1.6	1.8	**1.8**
	between all tests on different days	SD	0.652	0.539	0.575	0.539	**0.577**
		CV %	1.9	2.3	1.8	2.1	**2.0**

Length							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			1.1900	0.9888	1.1641	1.0246	
Reference Values for Evaluation			1.1900	0.9888	1.1641	1.0246	
Number Of Instruments			147	147	147	147	**147**
Inter-Instrument Variation	based on 30 tests	SD	0.0092	0.0100	0.0100	0.0110	**0.0100**
		CV %	0.8	1.0	0.9	1.1	**0.9**
	based on 6 tests	SD	0.0105	0.0124	0.0110	0.0121	**0.0115**
		CV %	0.9	1.3	0.9	1.2	**1.1**
	based on single tests	SD	0.0149	0.0159	0.0144	0.0155	**0.0152**
		CV %	1.3	1.6	1.2	1.5	**1.4**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.0052	0.0049	0.0049	0.0048	**0.0050**
		CV %	0.4	0.5	0.4	0.5	**0.5**
	between single tests on one day	SD	0.0105	0.0101	0.0095	0.0099	**0.0100**
		CV %	0.9	1.0	0.8	1.0	**0.9**
	between all tests on different days	SD	0.0116	0.0112	0.0105	0.0111	**0.0111**
		CV %	1.0	1.1	0.9	1.1	**1.0**

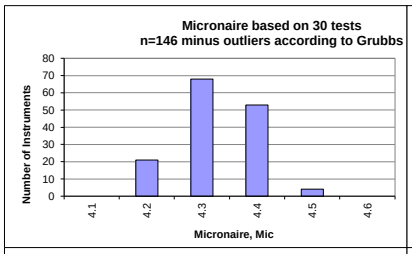
Uniformity							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			83.593	78.437	82.869	79.852	
Reference Values for Evaluation			83.593	78.437	82.869	79.852	
Number Of Instruments			146	146	146	146	**146**
Inter-Instrument Variation	based on 30 tests	SD	0.461	0.567	0.459	0.456	**0.486**
		CV %	0.6	0.7	0.6	0.6	**0.6**
	based on 6 tests	SD	0.538	0.650	0.507	0.526	**0.555**
		CV %	0.6	0.8	0.6	0.7	**0.7**
	based on single tests	SD	0.697	0.819	0.675	0.763	**0.738**
		CV %	0.8	1.0	0.8	1.0	**0.9**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.226	0.268	0.221	0.246	**0.240**
		CV %	0.3	0.3	0.3	0.3	**0.3**
	between single tests on one day	SD	0.462	0.521	0.446	0.510	**0.485**
		CV %	0.6	0.7	0.5	0.6	**0.6**
	between all tests on different days	SD	0.492	0.579	0.494	0.560	**0.531**
		CV %	0.6	0.7	0.6	0.7	**0.7**

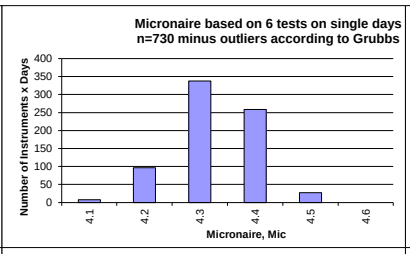
Color Rd							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			76.359	76.093	79.396	74.069	
Reference Values for Evaluation			76.359	76.093	79.396	74.069	
Number Of Instruments			144	144	144	144	**144**
Inter-Instrument Variation	based on 30 tests	SD	0.826	0.695	0.627	0.713	**0.715**
		CV %	1.1	0.9	0.8	1.0	**0.9**
	based on 6 tests	SD	0.848	0.708	0.657	0.735	**0.737**
		CV %	1.1	0.9	0.8	1.0	**1.0**
	based on single tests	SD	0.888	0.736	0.686	0.758	**0.767**
		CV %	1.2	1.0	0.9	1.0	**1.0**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.156	0.119	0.169	0.159	**0.151**
		CV %	0.2	0.2	0.2	0.2	**0.2**
	between single tests on one day	SD	0.190	0.174	0.200	0.185	**0.187**
		CV %	0.2	0.2	0.3	0.3	**0.2**
	between all tests on different days	SD	0.269	0.243	0.270	0.259	**0.260**
		CV %	0.4	0.3	0.3	0.3	**0.3**

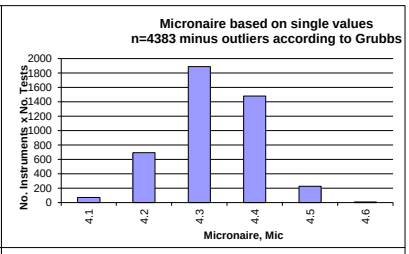
Color +b							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			13.491	11.596	9.543	8.170	
Reference Values for Evaluation			13.491	11.596	9.543	8.170	
Number Of Instruments			144	144	144	144	**144**
Inter-Instrument Variation	based on 30 tests	SD	0.300	0.266	0.224	0.231	**0.255**
		CV %	2.2	2.3	2.4	2.8	**2.4**
	based on 6 tests	SD	0.324	0.287	0.233	0.234	**0.270**
		CV %	2.4	2.5	2.4	2.9	**2.5**
	based on single tests	SD	0.362	0.313	0.261	0.262	**0.299**
		CV %	2.7	2.7	2.7	3.2	**2.8**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.099	0.086	0.078	0.077	**0.085**
		CV %	0.7	0.7	0.8	0.9	**0.8**
	between single tests on one day	SD	0.122	0.095	0.089	0.100	**0.101**
		CV %	0.9	0.8	0.9	1.2	**1.0**
	between all tests on different days	SD	0.171	0.139	0.141	0.132	**0.146**
		CV %	1.3	1.2	1.5	1.6	**1.4**

Test Result Distributions
Micronaire

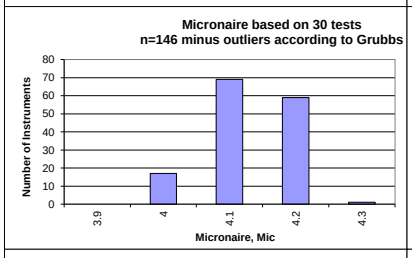
Cotton 1

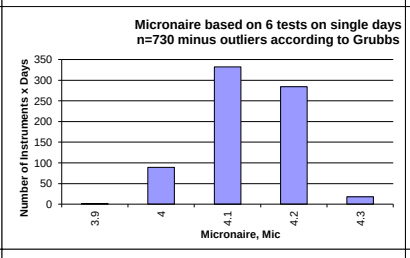


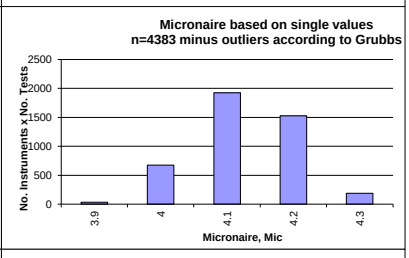




Cotton 2







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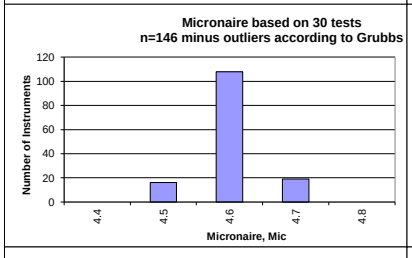
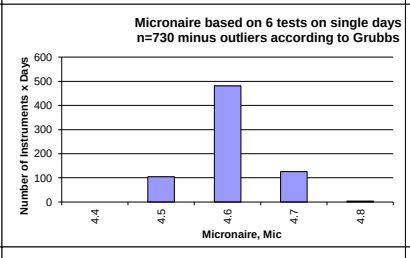
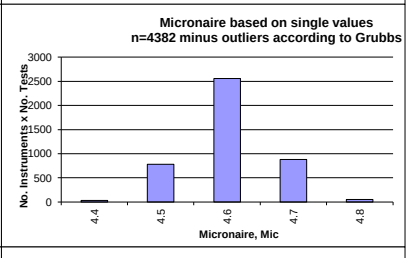
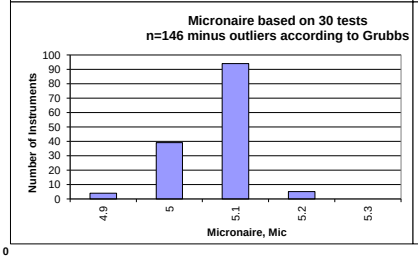
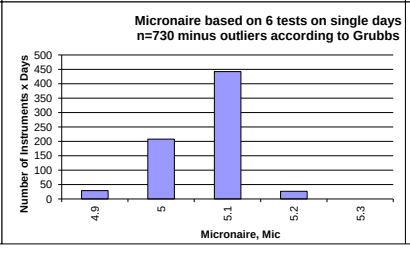


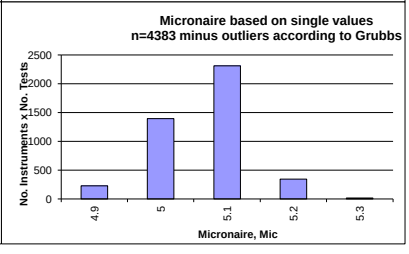




Cotton 4







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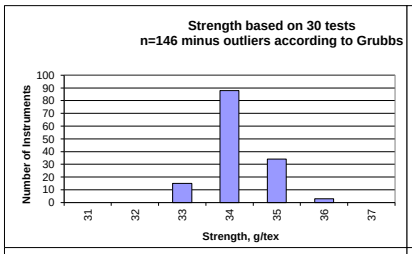
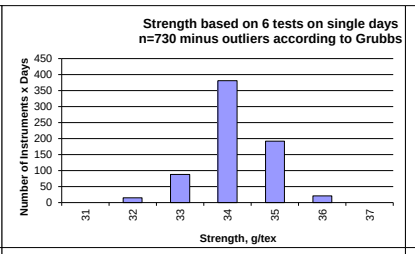
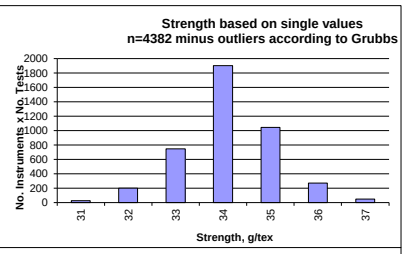
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method.)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Strength

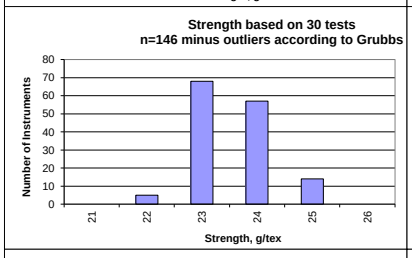
Cotton 1

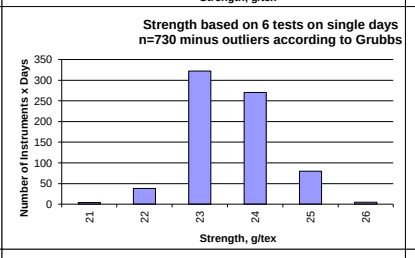


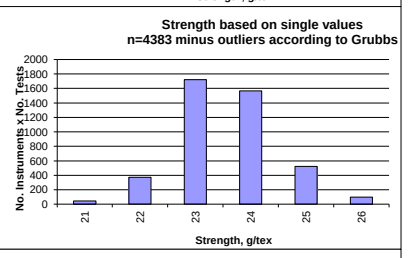




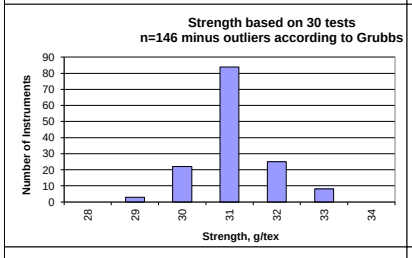
Cotton 2

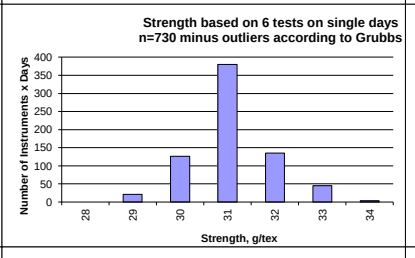


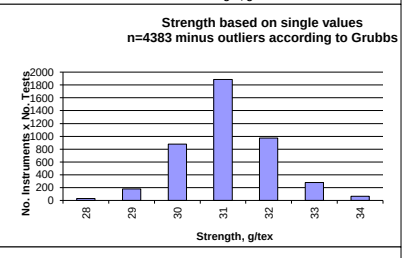




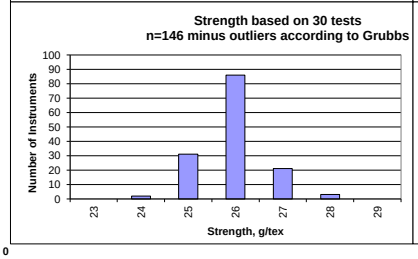
Cotton 3

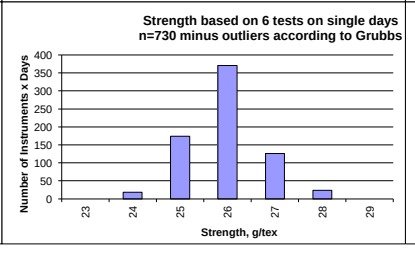


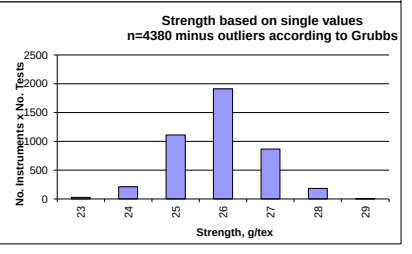




Cotton 4







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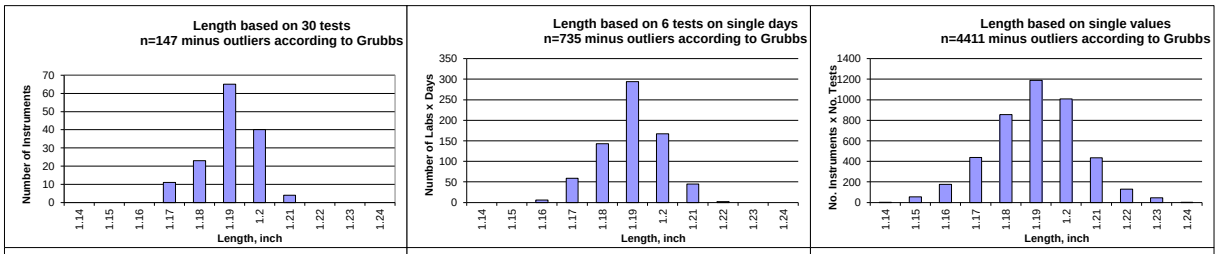
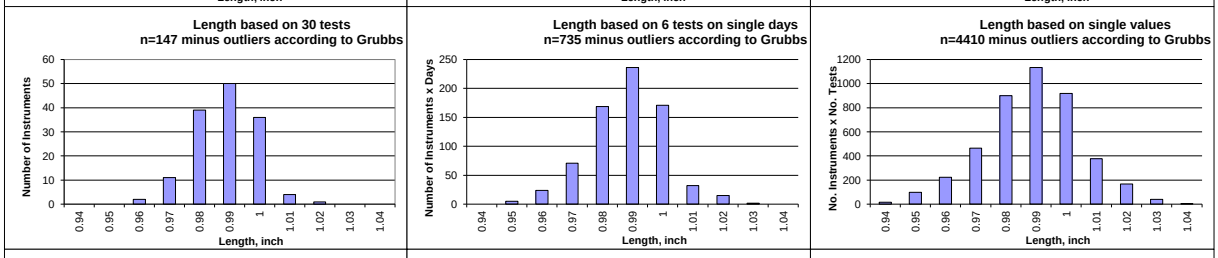
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Length

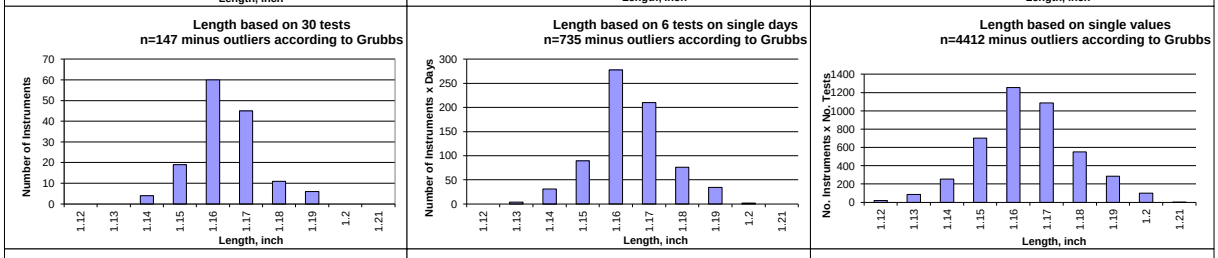
Cotton 1



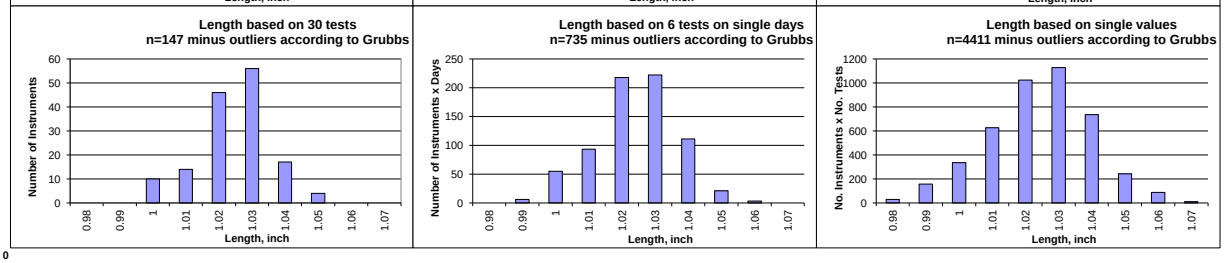
Cotton 2



Cotton 3



Cotton 4



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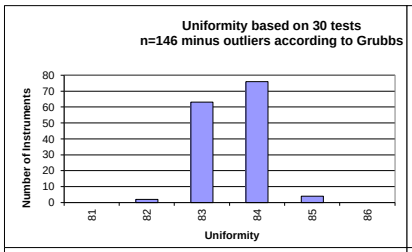
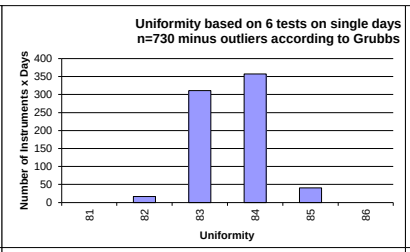
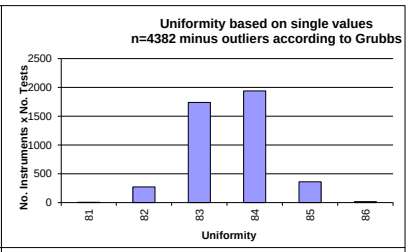
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Uniformity

Cotton 1







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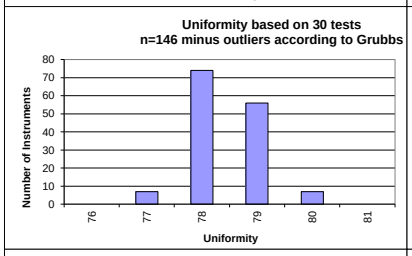
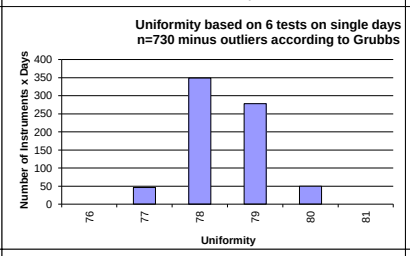
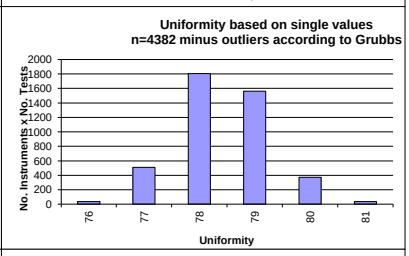
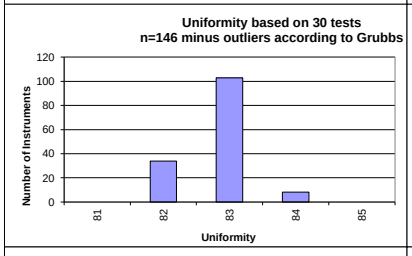
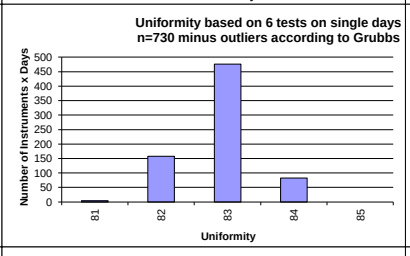


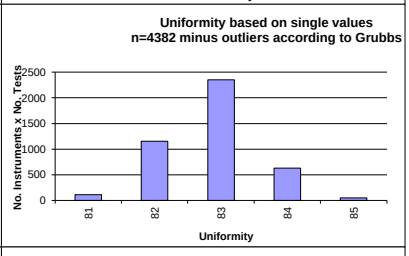




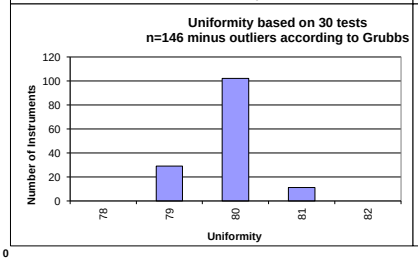
Cotton 3

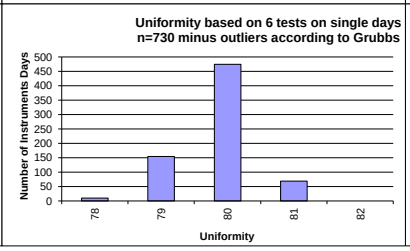


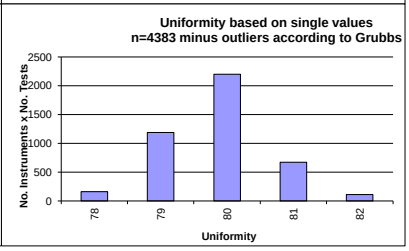




Cotton 4







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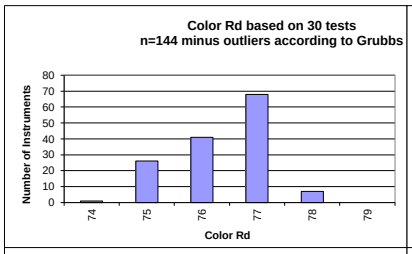
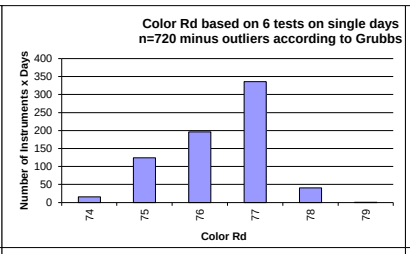
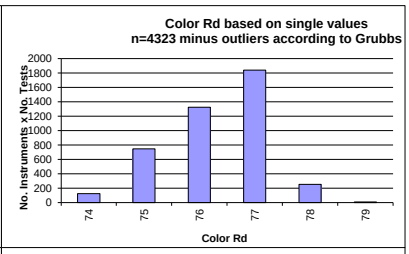
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Color Rd

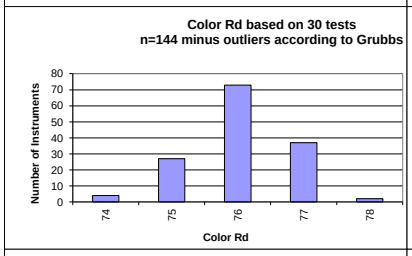
Cotton 1

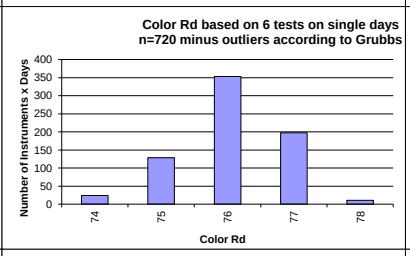


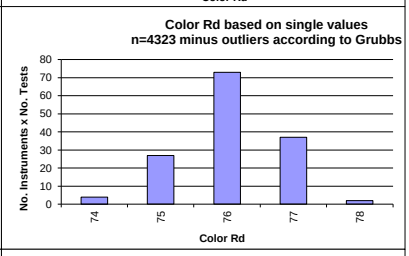




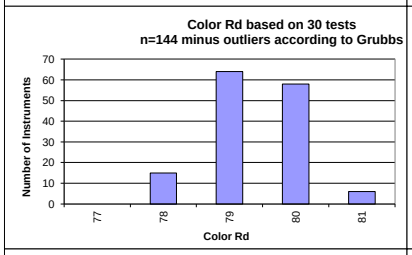
Cotton 2

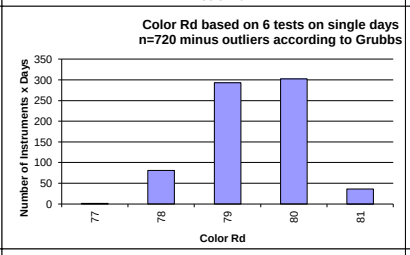


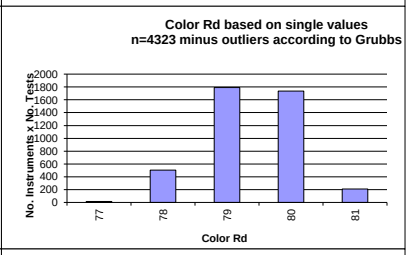




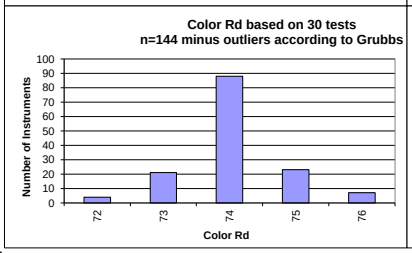
Cotton 3

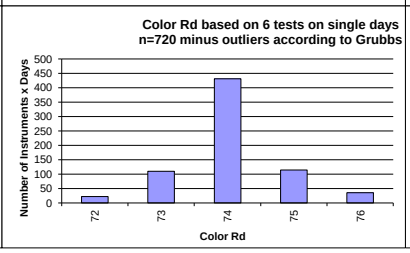


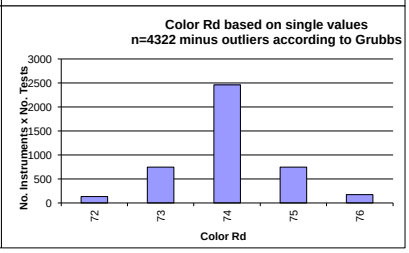




Cotton 4







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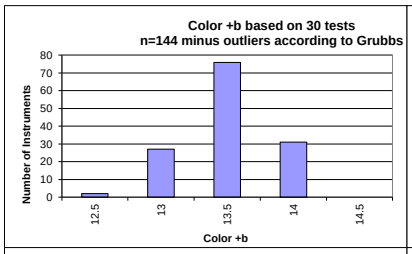
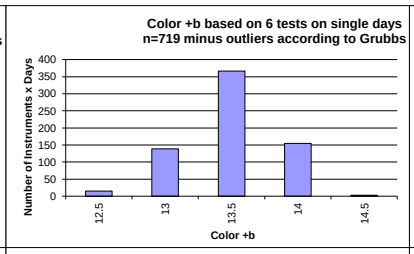
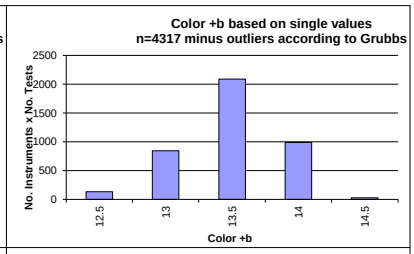
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Color +b

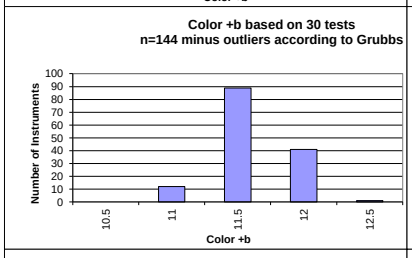
Cotton 1

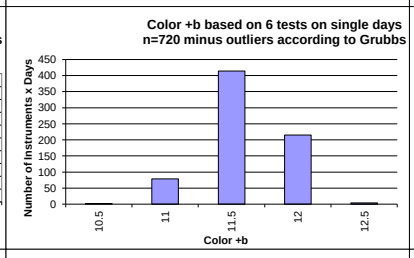


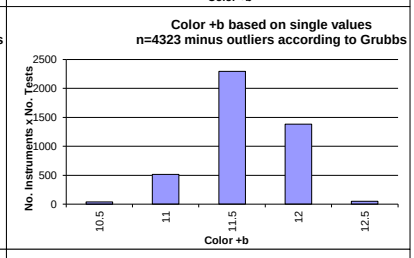




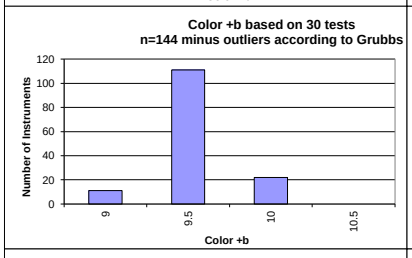
Cotton 2

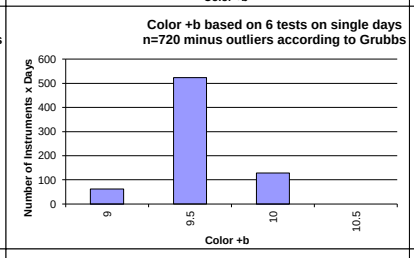


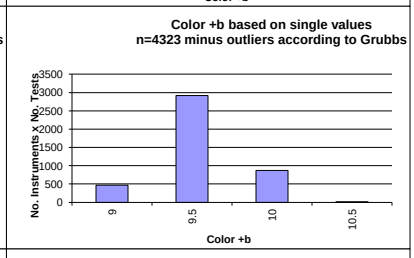




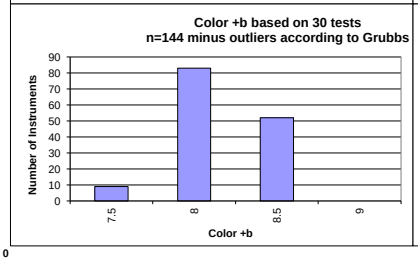
Cotton 3

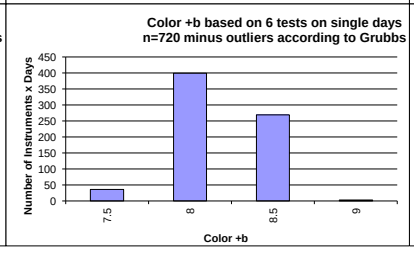


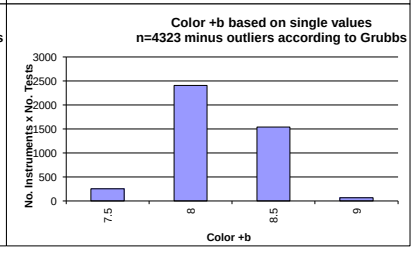




Cotton 4







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(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)			16.12	25.02	11.52	16.60	
Reference Values for Evaluation			16.12	25.02	11.52	16.60	
Number Of Instruments			93	93	93	92	**93**
Inter-Instrument Variation	based on 30 tests	SD	5.50	7.22	4.20	5.03	**5.49**
		CV %	34.1	28.9	36.4	30.3	**32.4**
	based on 6 tests	SD	5.97	7.56	4.39	5.52	**5.86**
		CV %	37.0	30.2	38.1	33.2	**34.6**
	based on single tests	SD	6.56	8.17	4.87	6.10	**6.43**
		CV %	40.7	32.7	42.3	36.7	**38.1**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	1.84	1.90	1.24	1.81	**1.70**
		CV %	11.4	7.6	10.8	10.9	**10.2**
	between single tests on one day	SD	2.43	3.02	1.87	2.37	**2.42**
		CV %	15.1	12.1	16.2	14.2	**14.4**
	between all tests on different days	SD	3.18	3.87	2.27	3.12	**3.11**
		CV %	19.7	15.5	19.7	18.8	**18.4**

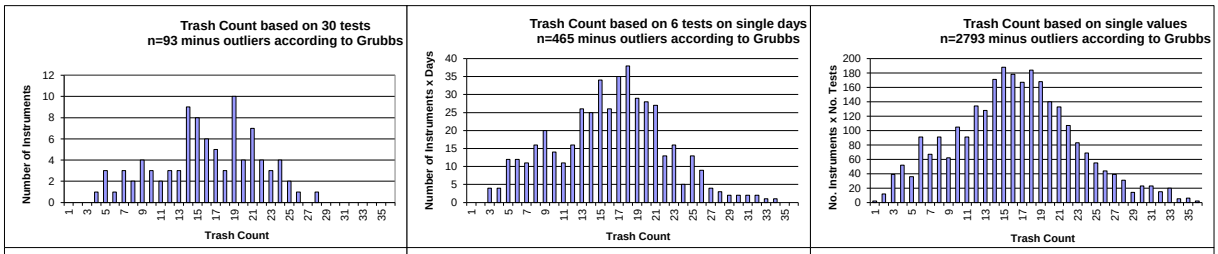
Trash Area							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			0.147	0.259	0.123	0.194	
Reference Values for Evaluation			0.147	0.259	0.123	0.194	
Number Of Instruments			93	93	93	92	**93**
Inter-Instrument Variation	based on 30 tests	SD	0.038	0.060	0.032	0.049	**0.045**
		CV %	26.0	23.3	25.9	25.1	**25.1**
	based on 6 tests	SD	0.045	0.069	0.037	0.063	**0.053**
		CV %	30.7	26.6	30.2	32.3	**30.0**
	based on single tests	SD	0.052	0.085	0.043	0.073	**0.063**
		CV %	35.2	33.0	35.4	37.6	**35.3**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.022	0.029	0.017	0.028	**0.024**
		CV %	14.6	11.2	14.1	14.2	**13.5**
	between single tests on one day	SD	0.027	0.045	0.021	0.043	**0.034**
		CV %	18.3	17.5	16.9	22.1	**18.7**
	between all tests on different days	SD	0.039	0.058	0.033	0.053	**0.046**
		CV %	26.4	22.6	27.1	27.2	**25.8**

Maturity							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			84.62	83.24	86.28	87.60	
Reference Values for Evaluation			84.62	83.24	86.28	87.60	
Number Of Instruments			99	99	99	98	**99**
Inter-Instrument Variation	based on 30 tests	SD	3.76	3.79	2.61	2.09	**3.06**
		CV %	4.4	4.5	3.0	2.4	**3.6**
	based on 6 tests	SD	1.93	1.76	2.62	2.10	**2.10**
		CV %	2.3	2.1	3.0	2.4	**2.5**
	based on single tests	SD	1.93	1.81	2.48	2.14	**2.09**
		CV %	2.3	2.2	2.9	2.4	**2.4**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.21	0.22	0.20	0.21	**0.21**
		CV %	0.2	0.3	0.2	0.2	**0.2**
	between single tests on one day	SD	0.35	0.29	0.27	0.29	**0.30**
		CV %	0.4	0.4	0.3	0.3	**0.4**
	between all tests on different days	SD	0.47	0.45	0.43	0.44	**0.45**
		CV %	0.6	0.5	0.5	0.5	**0.5**

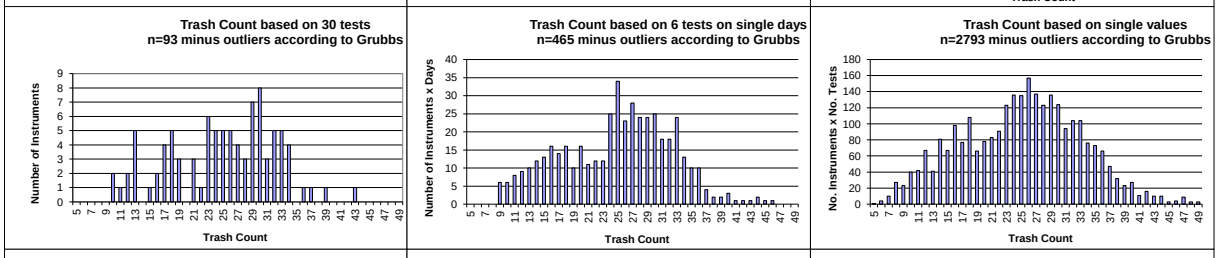
SFI							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			7.42	14.28	8.31	11.87	
Reference Values for Evaluation			7.42	14.28	8.31	11.87	
Number Of Instruments			105	105	105	104	**105**
Inter-Instrument Variation	based on 30 tests	SD	0.54	1.43	0.58	1.06	**0.90**
		CV %	7.2	10.0	6.9	8.9	**8.3**
	based on 6 tests	SD	0.59	1.49	0.59	1.11	**0.95**
		CV %	8.0	10.4	7.1	9.4	**8.7**
	based on single tests	SD	0.66	1.64	0.70	1.25	**1.07**
		CV %	8.9	11.5	8.5	10.6	**9.9**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.15	0.39	0.19	0.30	**0.26**
		CV %	2.0	2.8	2.3	2.5	**2.4**
	between single tests on one day	SD	0.29	0.71	0.35	0.57	**0.48**
		CV %	3.9	5.0	4.2	4.8	**4.4**
	between all tests on different days	SD	0.32	0.78	0.39	0.65	**0.54**
		CV %	4.4	5.5	4.7	5.5	**5.0**

Test Result Distributions
Trash Count

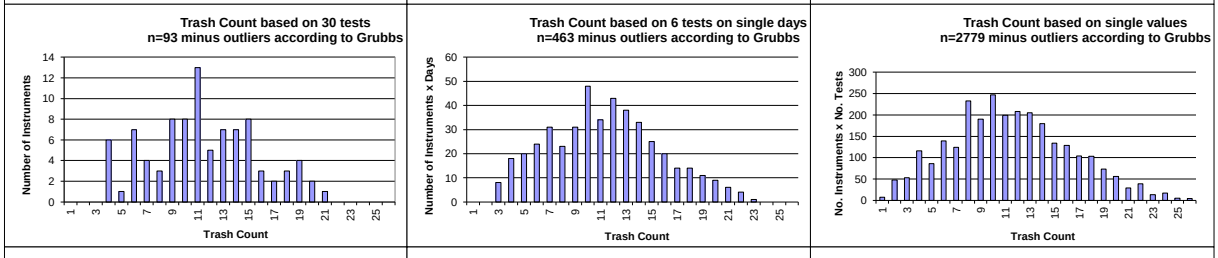
Cotton 1



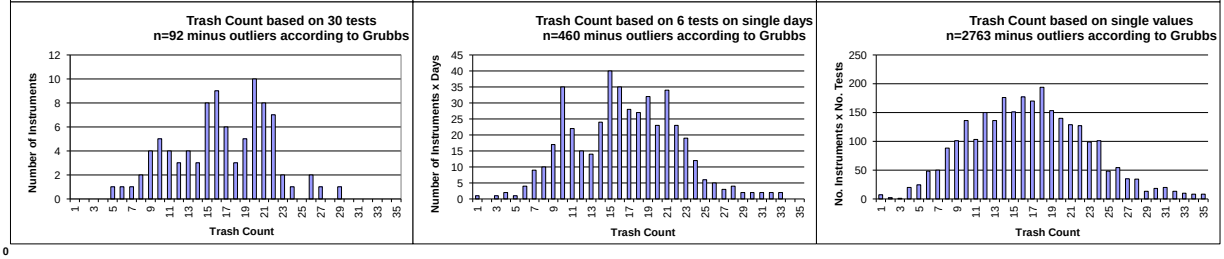
Cotton 2



Cotton 3



Cotton 4



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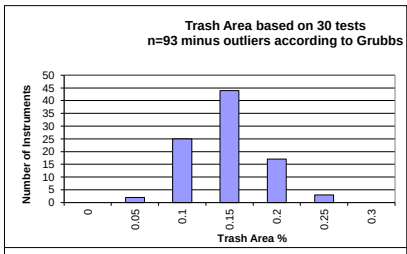
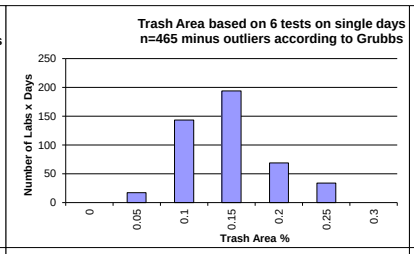
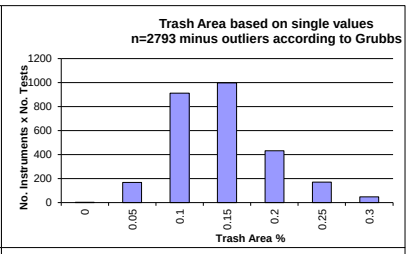
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Trash Area

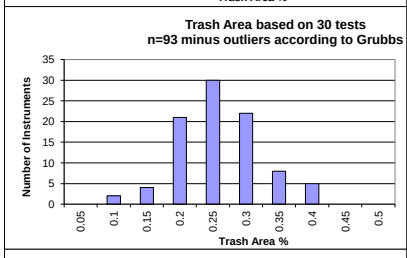
Cotton 1

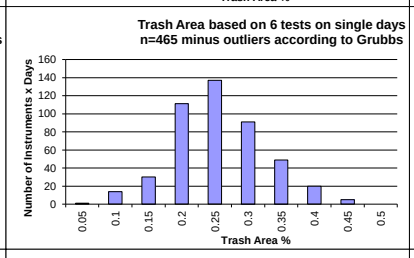


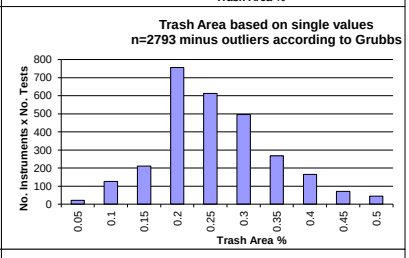




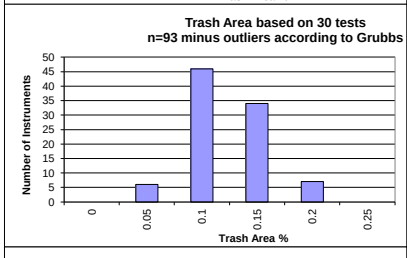
Cotton 2

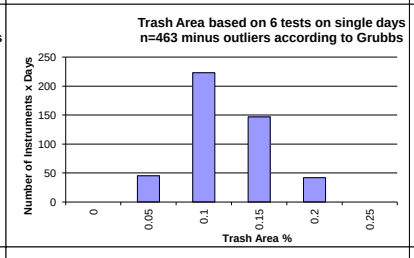


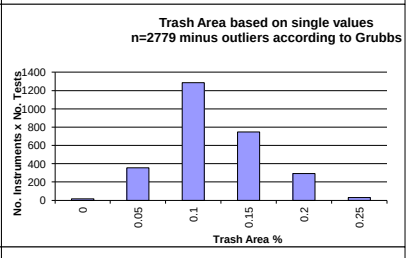




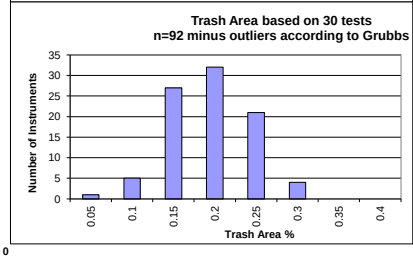
Cotton 3

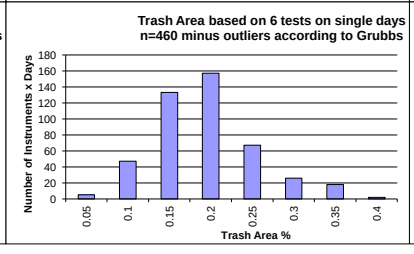


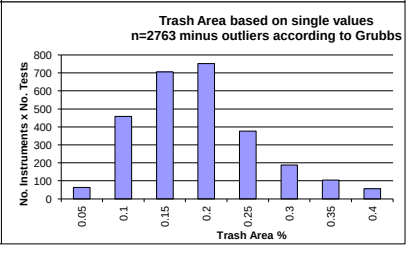




Cotton 4







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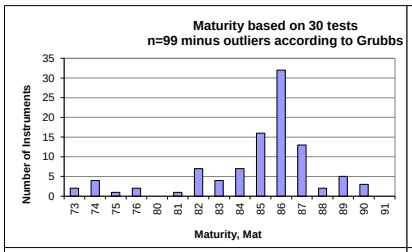
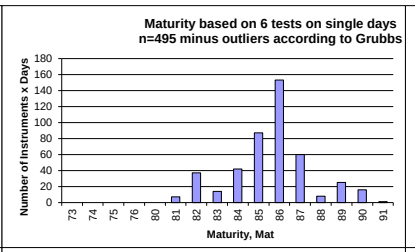
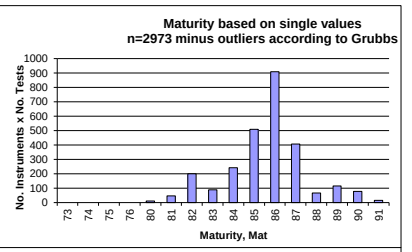
Test Result Distributions
Maturity

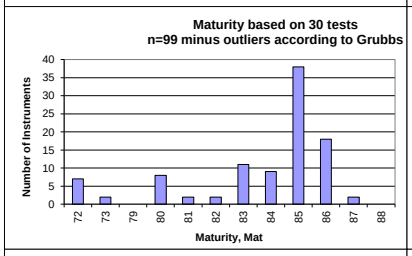
Cotton 1

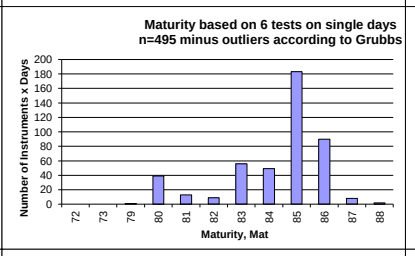


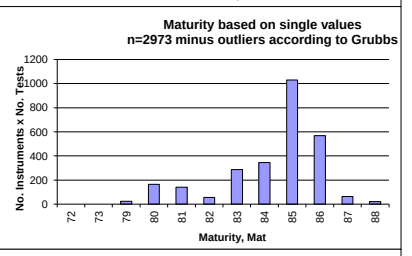




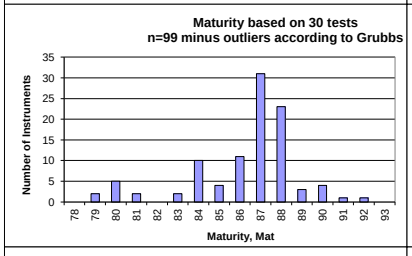
Cotton 2

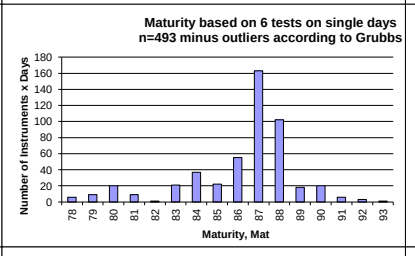


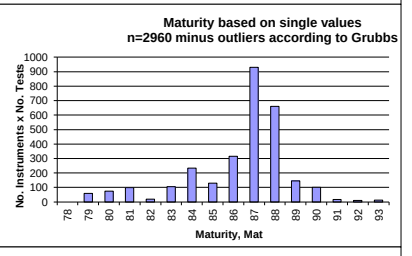




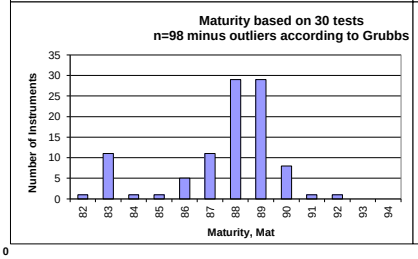
Cotton 3

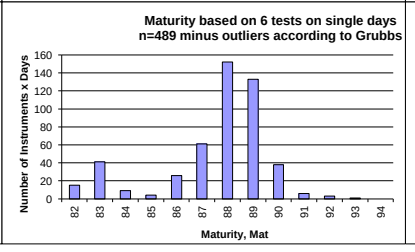


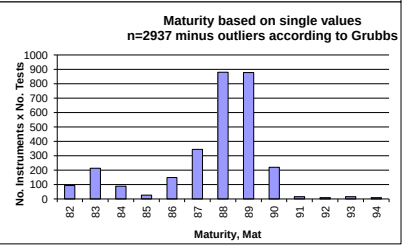




Cotton 4





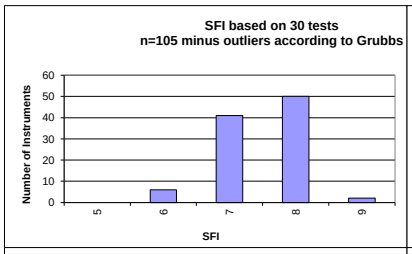


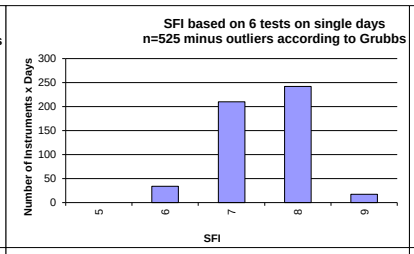
0

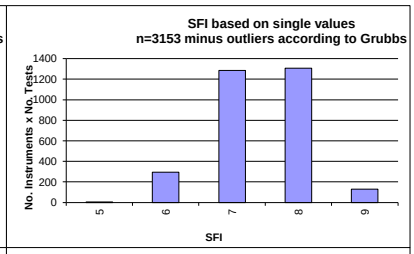
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method.)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
SFI

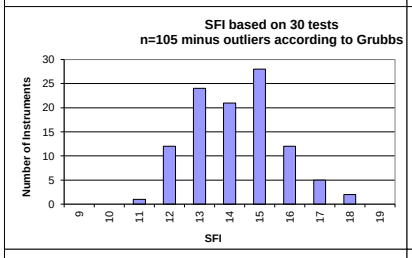
Cotton 1

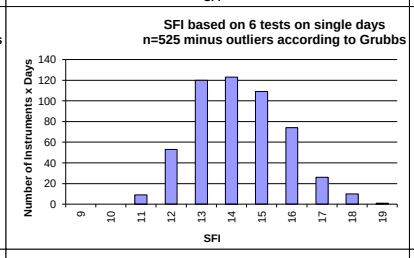


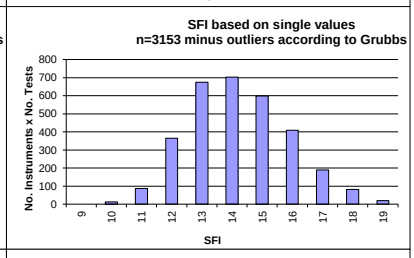




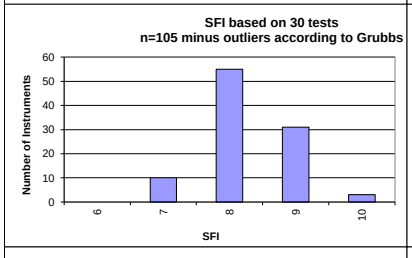
Cotton 2

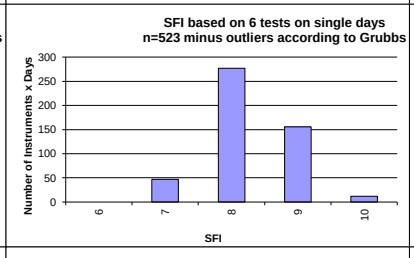


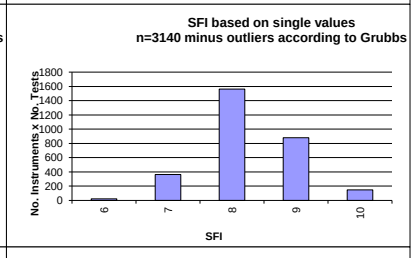




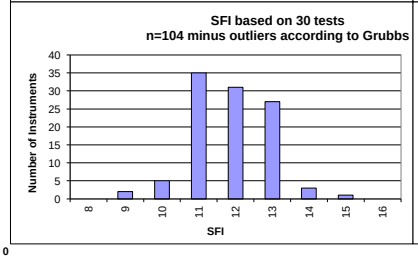
Cotton 3

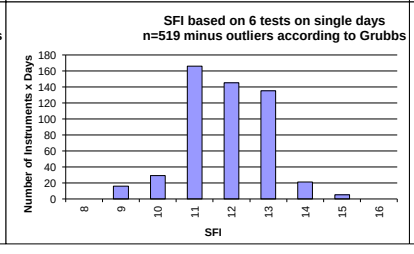


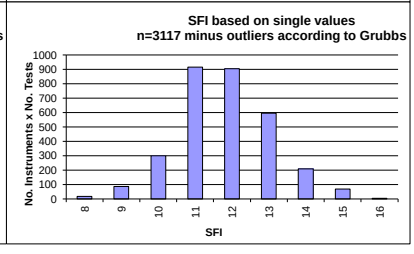




Cotton 4







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(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 2015 - 3
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*

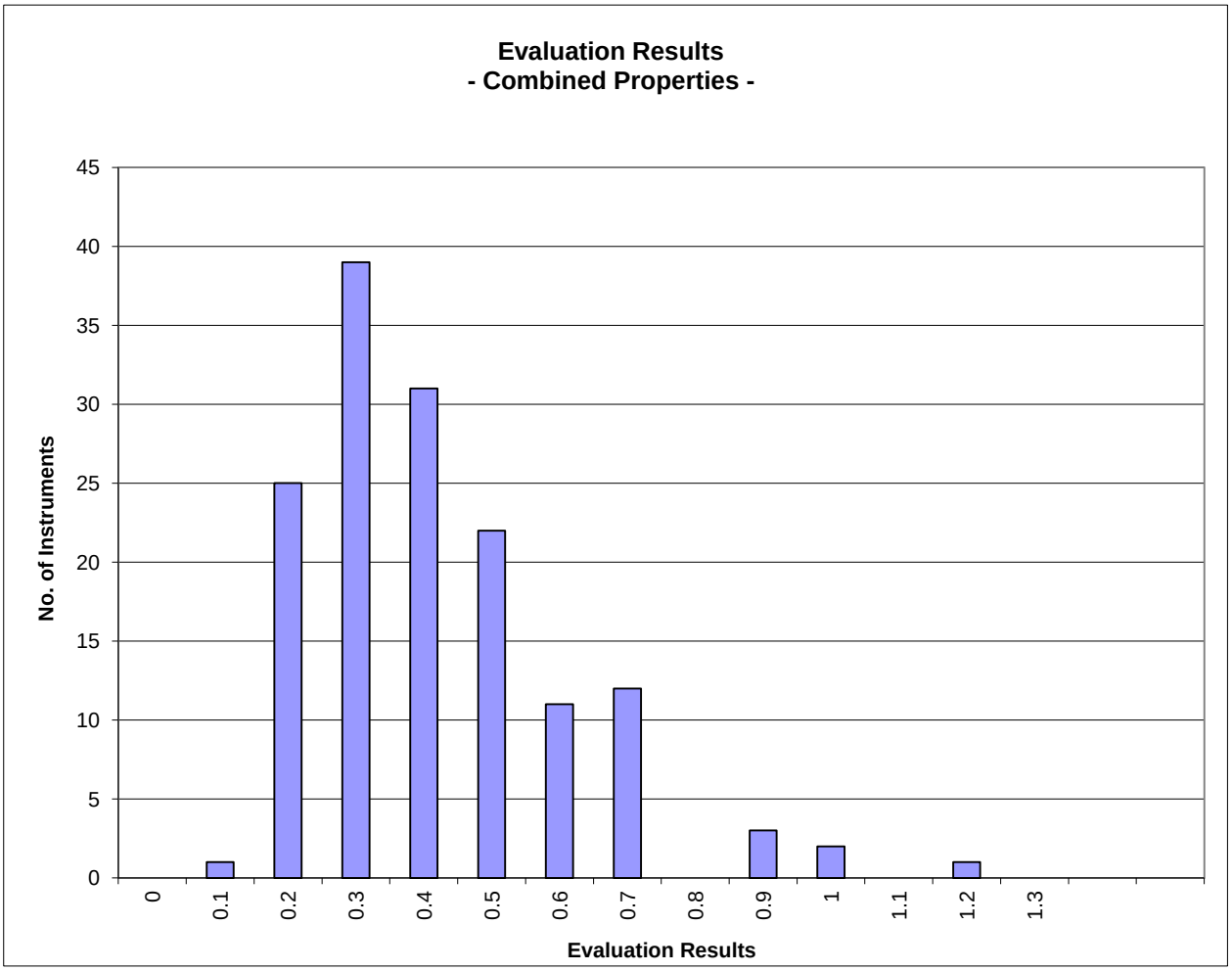
Instrument Evaluation

- Graph of Combined Properties -

According to ICAC CSITC Task Force Recommendations

Global - Round Trial 2015 - 3

		Evaluation Combined Prop.
Statistics	Average	0.42
	Median	0.37
	Best Instrument	0.14
	Worst Instrument	1.20



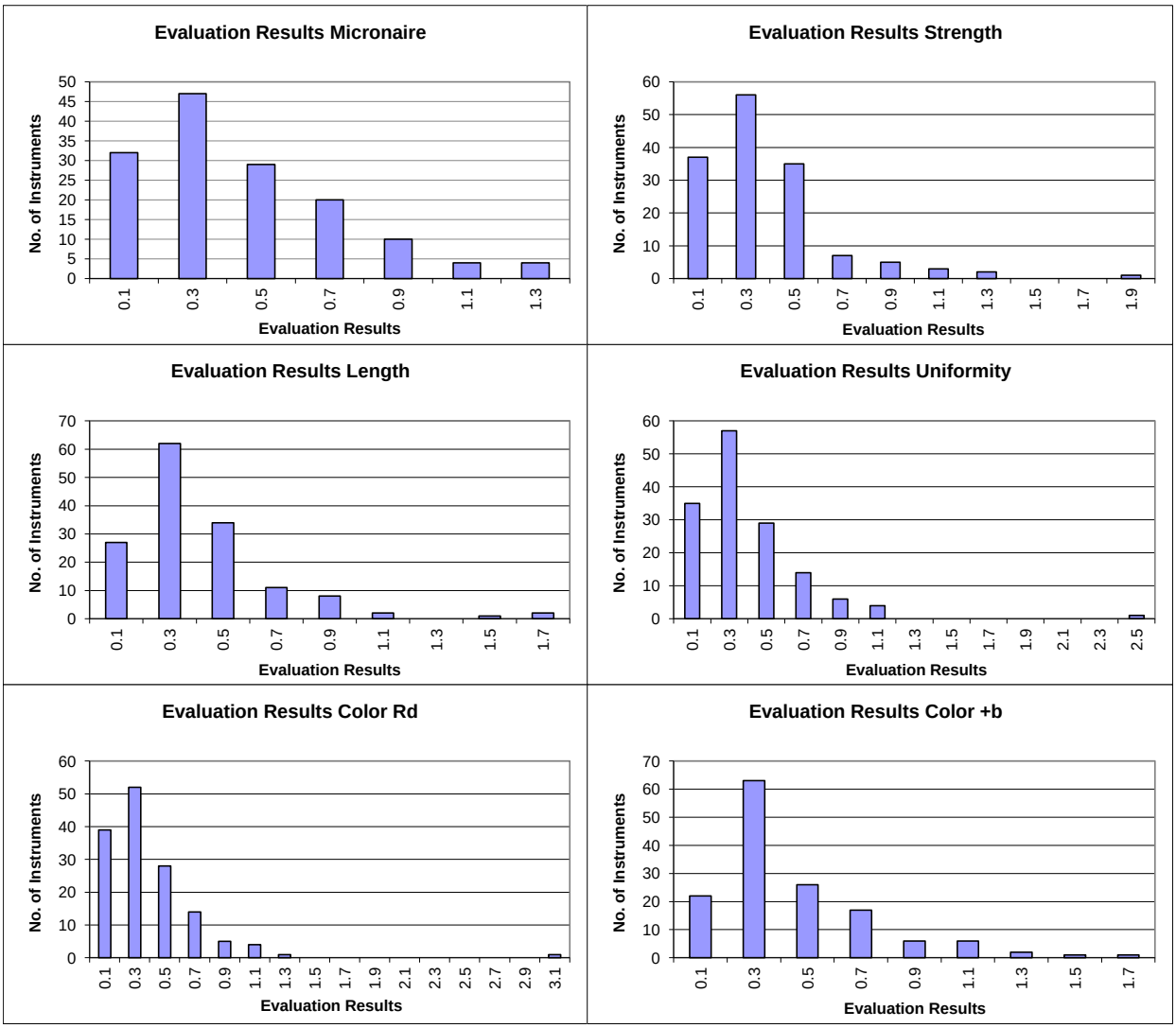
x-Axis shows midpoints of classes

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 2015 - 3

		Evaluation Micronaire	Evaluation Strength	Evaluation Length	Evaluation Uniformity	Evaluation Color Rd	Evaluation Color +b
Statistics	Average	0.45	0.38	0.42	0.40	0.39	0.44
	Median	0.37	0.30	0.36	0.32	0.31	0.34
	Best Instr.	0.07	0.06	0.09	0.09	0.05	0.03
	Worst Instr.	1.33	1.99	1.74	2.51	3.09	1.65



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

International Cotton Advisory Committee

CSITC
Global - Round Trial 2015 - 3
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:
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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	99.3	97.1	98.3	99.5	93.9	92.7
Completely within limits	97.3	91.1	95.2	99.3	86.8	81.3
% of Instruments ≥75% within limits	100.0	97.9	98.6	99.3	93.8	91.0
% of Instruments ≥50% within limits	100.0	99.3	99.3	99.3	96.5	98.6

Percentage of Results Within Limits						
Instrument	**Micronaire**	**Strength**	**Length**	**Uniformity**	**Color Rd**	**Color +b**
GL153-001-01	100	100	100	100	100	100
GL153-002-06	100	100	100	100	100	100
GL153-002-07	100	100	100	100	100	100
GL153-002-08	100	100	100	100	100	100
GL153-003-01	100	100	100	100	25	50
GL153-003-09	100	100	100	100	25	75
GL153-003-11	100	100	100	100	50	50
GL153-003-12	100	100	100	100	50	50
GL153-004-01	100	100	100	100	100	100
GL153-007-01	100	100	100	100	100	100
GL153-007-02	100	100	100	100	100	100
GL153-008-01	100	100	100	100	100	100
GL153-008-02	100	100	100	100	100	100
GL153-008-05	100	100	100	100	100	100
GL153-008-07	100	100	100	100	100	100
GL153-010-01	100	100	100	100	100	50
GL153-011-01	100	100	100	100	100	75
GL153-012-20	100	100	100	100	100	100
GL153-012-25	100	100	100	100	100	100
GL153-013-02	100	100	100	100	100	100
GL153-013-03	100	50	50	100	100	50
GL153-013-06	75	25	25	100	100	75
GL153-013-07	100	75	100	100	100	100
GL153-013-08	100	100	100	100	100	100
GL153-014-01	100	100	100	100	75	100
GL153-014-02	100	100	100	100	100	100
GL153-016-03	100	100	100	100	100	100
GL153-017-01	100	100	100	100	75	100
GL153-018-01	100	100	100	100	100	100
GL153-018-02	100	100	100	100	100	100
GL153-018-03	100	100	100	100	100	100
GL153-018-04	100	100	100	100	100	100
GL153-019-03	100	100	100	100	100	100
GL153-020-01	100	100	100	100	100	100

GL153-021-01	100	100	100	100	100	100
GL153-021-02	100	100	100	100	100	100
GL153-022-01	100	100	100	100	100	100
GL153-024-01	100	100	100	100	100	100
GL153-025-01	100	100	100	100	100	100
GL153-026-01	100	100	100	100	100	100
GL153-027-01	100	100	100	100	75	75
GL153-027-02	100	100	100	100	75	75
GL153-027-06	100	100	100	100	75	75
GL153-028-01	100	100	100	100	100	100
GL153-028-03	100	50	100	25	100	75
GL153-029-01	100	100	100	100	100	75
GL153-029-02	100	100	100	100	100	100
GL153-032-01	100	100	100	100	100	25
GL153-034-04	100	75	100	100	100	75
GL153-034-05	100	100	100	100	100	100
GL153-036-01	100	100	100	100	100	100
GL153-037-14	100	75	100	100	100	100
GL153-037-15	100	100	100	100	100	75
GL153-038-01	100	100	100	100	100	100
GL153-039-01	100	100	100	100	100	100
GL153-040-01	100	100	100	100	100	100
GL153-043-01	100	100	100	100	100	100
GL153-043-03	100	100	100	100	100	100
GL153-044-04	100	100	100	100	100	100
GL153-045-01	100	100	100	100	100	100
GL153-045-02	100	100	100	100	100	50
GL153-046-01	100	100	100	100	100	100
GL153-046-02	100	100	100	100	100	100
GL153-046-05	100	100	100	100	25	50
GL153-046-06	100	100	100	100	100	100
GL153-048-01	100	100	100	100	50	75
GL153-048-02	100	100	100	100	100	100
GL153-048-04	100	100	100	100	100	100
GL153-049-01	100	75	100	100	100	50
GL153-049-02	100	100	100	100	100	100
GL153-049-03	100	100	100	100	75	100
GL153-050-01	75	100	100	100	50	75
GL153-050-02	100	100	75	100	100	100
GL153-051-01	100	100	100	100	75	75
GL153-051-02	100	100	100	100	100	100
GL153-052-01	100	100	100	100	100	100
GL153-052-02	100	100	100	100	100	25
GL153-053-01	100	100	100	100	100	100
GL153-054-01	100	100	100	100	100	100
GL153-055-02	100	100	100	100	100	100
GL153-055-03	100	100	100	100	100	100
GL153-056-01	100	100	100	100	100	75
GL153-057-01	100	100	100	100	100	50
GL153-058-03	100	100	100	100	100	100
GL153-058-04	100	100	100	100	100	100
GL153-058-05	100	100	100	100	100	100
GL153-058-06	100	100	100	100	100	100
GL153-059-01	100	100	100	100	75	100
GL153-060-01	100	100	100	100	100	100

GL153-061-01	100	100	100	100	100	100
GL153-061-02	100	100	100	100	100	100
GL153-062-01	100	100	100	100	100	100
GL153-064-24	100	100	100	100	100	100
GL153-066-12		75	100	100		
GL153-068-01	100	100	100	100	100	100
GL153-068-02	100	100	100	100	100	100
GL153-069-01	100	100	100	100	100	50
GL153-069-02	100	100	100	100	75	50
GL153-069-03	100	100	75	100	100	100
GL153-069-04	100	100	100	100	100	100
GL153-070-02	100	100	100	100	100	100
GL153-071-01	100	100	100	100	100	100
GL153-072-01	100	100	100	100	100	100
GL153-073-01	100	75	100	100	100	100
GL153-074-01	100	100	100	100	100	100
GL153-075-01	75	75	100	100	0	100
GL153-076-01	100	100	100	100	75	100
GL153-077-01	100	100	100	100	100	100
GL153-077-02	100	100	100	100	100	100
GL153-078-01	100	100	100	100	100	100
GL153-080-01	100	100	100	100	100	100
GL153-080-05	100	100	100	100	100	100
GL153-080-10	100	100	100	100	100	100
GL153-080-12	100	100	100	100	100	100
GL153-081-03	100	100	100	100	100	100
GL153-081-04	100	100	100	100	100	100
GL153-081-06	100	100	100	100	100	100
GL153-082-01	100	100	100	100	100	100
GL153-083-01	100	100	100	100	100	100
GL153-083-04	100	100	100	100	100	100
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GL153-085-24	100	100	100	100	100	100
GL153-085-26	100	100	100	100	100	100
GL153-086-01	100	100	100	100	100	100
GL153-087-06	100	100	100	100	100	100
GL153-088-01	75	75	75	100		
GL153-089-01	100	100	100	100	100	100
GL153-090-01	100	100	75	100	100	100
GL153-091-01	100	100	100	100	100	100
GL153-092-01	100	75	100	100	100	100
GL153-094-01	100	100	100	100	100	100
GL153-095-07	100	100	100	100	100	100
GL153-095-08	100	100	100	100	100	100
GL153-095-09	100	100	100	100	100	100
GL153-095-10	100	100	100	100	100	100
GL153-095-11	100	100	100	100	100	100
GL153-095-12	100	100	100	100	100	100
GL153-096-01	100	75	100	100	100	100
GL153-097-05	100		75			
GL153-098-05	100	100	100	100	100	100
GL153-099-01	100	100	100	100	100	100
GL153-100-04	100	100	100	100	100	100
GL153-101-01	100	100	100	100	0	100

GL153-102-03	100	100	100	100	100	100
GL153-103-01	100	100	100	100	100	100
GL153-104-01	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	98.3	93.9	95.7	97.4	92.5	88.5
% of Instruments 100% within limits	67.1	45.2	34.7	58.2	55.6	25.0
% of Instruments ≥95% within limits	90.4	70.5	74.1	87.0	68.1	56.9
% of Instruments ≥75% within limits	99.3	93.2	97.3	98.6	90.3	85.4
% of Instruments ≥65% within limits	100.0	95.9	98.6	98.6	94.4	90.3
% of Instruments ≥50% within limits	100.0	98.6	99.3	99.3	97.9	96.5

Percentage of Results Within Limits						
Instrument	**Micronaire**	**Strength**	**Length**	**Uniformity**	**Color Rd**	**Color +b**
GL153-001-01	99	95	97	100	100	96
GL153-002-06	99	92	98	99	100	98
GL153-002-07	98	93	96	96	91	89
GL153-002-08	99	98	99	100	96	95
GL153-003-01	100	100	98	100	53	58
GL153-003-09	100	100	98	100	53	60
GL153-003-11	100	100	98	100	57	54
GL153-003-12	100	100	98	100	59	53
GL153-004-01	100	100	100	100	100	98
GL153-007-01	100	99	100	89	100	86
GL153-007-02	100	93	100	100	100	100
GL153-008-01	100	100	99	99	100	100
GL153-008-02	99	100	96	100	95	96
GL153-008-05	100	100	99	99	100	88
GL153-008-07	100	100	97	100	100	100
GL153-010-01	99	88	97	89	97	60
GL153-011-01	98	86	100	100	88	74
GL153-012-20	100	100	100	100	100	100
GL153-012-25	100	100	100	100	100	100
GL153-013-02	98	92	92	98	74	93
GL153-013-03	100	54	51	77	70	51
GL153-013-06	90	32	45	59	98	89
GL153-013-07	100	75	99	100	100	99
GL153-013-08	98	88	89	92	100	88
GL153-014-01	100	100	98	100	85	75
GL153-014-02	100	94	98	100	88	76
GL153-016-03	98	98	98	99	100	96
GL153-017-01	98	97	80	97	83	73
GL153-018-01	99	92	98	100	100	100
GL153-018-02	100	99	98	100	100	100

GL153-018-03	100	100	99	98	100	100
GL153-018-04	100	100	96	100	100	100
GL153-019-03	99	99	96	100	100	94
GL153-020-01	88	93	88	99	79	95
GL153-021-01	100	100	100	100	92	97
GL153-021-02	100	100	100	100	100	95
GL153-022-01	86	93	98	94	100	99
GL153-024-01	95	88	98	100	100	95
GL153-025-01	100	97	99	100	100	98
GL153-026-01	99	99	100	100	94	81
GL153-027-01	100	100	100	100	86	75
GL153-027-02	100	100	100	100	81	75
GL153-027-06	100	100	100	100	83	75
GL153-028-01	100	97	100	97	100	93
GL153-028-03	100	52	99	37	96	73
GL153-029-01	100	98	97	100	100	83
GL153-029-02	100	100	98	97	100	97
GL153-032-01	100	96	99	100	99	43
GL153-034-04	90	83	80	87	90	82
GL153-034-05	98	96	93	99	100	85
GL153-036-01	99	92	98	88	93	88
GL153-037-14	100	69	100	100	90	100
GL153-037-15	99	83	100	100	83	65
GL153-038-01	99	96	97	100	100	98
GL153-039-01	100	98	93	100	90	98
GL153-040-01	100	100	96	100	100	100
GL153-043-01	99	100	98	100	100	100
GL153-043-03	98	100	97	100	100	93
GL153-044-04	100	100	96	99	100	94
GL153-045-01	100	77	97	100	100	99
GL153-045-02	100	93	88	92	99	62
GL153-046-01	100	100	92	100	100	100
GL153-046-02	100	100	95	100	100	100
GL153-046-05	100	100	98	100	53	58
GL153-046-06	100	100	94	100	100	99
GL153-048-01	100	99	100	99	48	78
GL153-048-02	100	99	100	100	99	99
GL153-048-04	100	98	99	99	100	100
GL153-049-01	86	75	96	98	93	59
GL153-049-02	100	95	98	89	100	100
GL153-049-03	97	93	99	97	70	100
GL153-050-01	70	98	89	98	69	81
GL153-050-02	99	98	80	92	100	100
GL153-051-01	100	100	100	99	83	75
GL153-051-02	100	100	99	98	100	99
GL153-052-01	100	99	87	99	100	78
GL153-052-02	100	98	99	99	70	40
GL153-053-01	95	88	98	100	100	95
GL153-054-01	100	92	99	96	99	91
GL153-055-02	100	100	98	100	85	97
GL153-055-03	100	100	100	100	100	100
GL153-056-01	100	100	96	100	93	78
GL153-057-01	100	98	100	99	100	38
GL153-058-03	100	100	98	100	100	99
GL153-058-04	100	100	97	100	100	100