International Cotton Advisory Committee

CSITC
Global - Round Trial 2014 - 4
General Evaluation

Section One: Result Distribution
Section Two: Instrument Evaluation
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Section One: Result Distribution

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- -Summary Table
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Optional Parameters
- -Summary Table
- -Distribution Graphs

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System Provided by:
Generation 10 Limited

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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 2014 - 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)			4.376	4.805	4.342	4.268	
Reference Values for Evaluation			4.376	4.805	4.342	4.268	
Number Of Instruments			142	142	142	142	**142**
Inter-Instrument Variation	based on 30 tests	SD	0.069	0.063	0.069	0.065	**0.066**
		CV %	1.6	1.3	1.6	1.5	**1.5**
	based on 6 tests	SD	0.069	0.071	0.073	0.070	**0.071**
		CV %	1.6	1.5	1.7	1.6	**1.6**
	based on single tests	SD	0.082	0.080	0.084	0.079	**0.081**
		CV %	1.9	1.7	1.9	1.9	**1.8**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.024	0.026	0.028	0.024	**0.026**
		CV %	0.6	0.6	0.6	0.6	**0.6**
	between single tests on one day	SD	0.036	0.040	0.042	0.035	**0.038**
		CV %	0.8	0.8	1.0	0.8	**0.9**
	between all tests on different days	SD	0.045	0.049	0.049	0.044	**0.047**
		CV %	1.0	1.0	1.1	1.0	**1.0**

Strength							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			25.107	26.808	34.123	27.625	
Reference Values for Evaluation			25.107	26.808	34.123	27.625	
Number Of Instruments			142	142	142	142	**142**
Inter-Instrument Variation	based on 30 tests	SD	0.680	0.587	0.906	0.916	**0.772**
		CV %	2.7	2.2	2.7	3.3	**2.7**
	based on 6 tests	SD	0.786	0.740	0.981	0.998	**0.876**
		CV %	3.1	2.8	2.9	3.6	**3.1**
	based on single tests	SD	1.027	0.906	1.116	1.115	**1.041**
		CV %	4.1	3.4	3.3	4.0	**3.7**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.262	0.272	0.321	0.323	**0.295**
		CV %	1.0	1.0	0.9	1.2	**1.0**
	between single tests on one day	SD	0.443	0.486	0.581	0.509	**0.505**
		CV %	1.8	1.8	1.7	1.8	**1.8**
	between all tests on different days	SD	0.517	0.574	0.666	0.584	**0.585**
		CV %	2.1	2.1	2.0	2.1	**2.1**

Length							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			1.0042	1.0132	1.1927	1.0253	
Reference Values for Evaluation			1.0042	1.0132	1.1927	1.0253	
Number Of Instruments			141	141	141	141	**141**
Inter-Instrument Variation	based on 30 tests	SD	0.0089	0.0110	0.0094	0.0107	**0.0100**
		CV %	0.9	1.1	0.8	1.0	**1.0**
	based on 6 tests	SD	0.0116	0.0122	0.0110	0.0122	**0.0118**
		CV %	1.2	1.2	0.9	1.2	**1.1**
	based on single tests	SD	0.0164	0.0158	0.0152	0.0159	**0.0158**
		CV %	1.6	1.6	1.3	1.5	**1.5**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.0053	0.0055	0.0054	0.0055	**0.0054**
		CV %	0.5	0.5	0.5	0.5	**0.5**
	between single tests on one day	SD	0.0092	0.0102	0.0102	0.0103	**0.0100**
		CV %	0.9	1.0	0.9	1.0	**0.9**
	between all tests on different days	SD	0.0108	0.0116	0.0110	0.0112	**0.0111**
		CV %	1.1	1.1	0.9	1.1	**1.1**

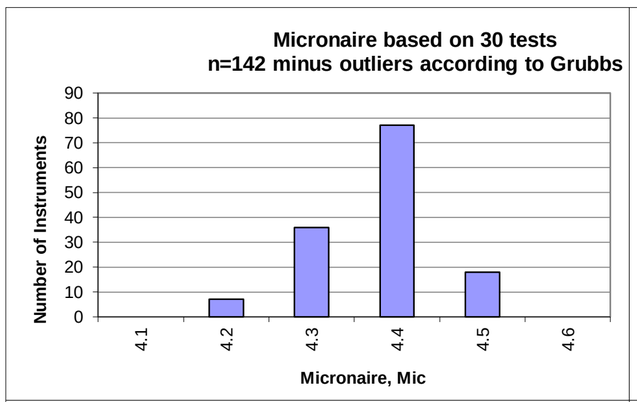
Uniformity							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			79.583	80.934	83.614	79.307	
Reference Values for Evaluation			79.583	80.934	83.614	79.307	
Number Of Instruments			142	142	142	142	**142**
Inter-Instrument Variation	based on 30 tests	SD	0.484	0.550	0.371	0.616	**0.505**
		CV %	0.6	0.7	0.4	0.8	**0.6**
	based on 6 tests	SD	0.568	0.597	0.451	0.674	**0.572**
		CV %	0.7	0.7	0.5	0.8	**0.7**
	based on single tests	SD	0.748	0.760	0.649	0.853	**0.752**
		CV %	0.9	0.9	0.8	1.1	**0.9**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.262	0.231	0.260	0.247	**0.250**
		CV %	0.3	0.3	0.3	0.3	**0.3**
	between single tests on one day	SD	0.486	0.491	0.452	0.500	**0.483**
		CV %	0.6	0.6	0.5	0.6	**0.6**
	between all tests on different days	SD	0.536	0.548	0.535	0.556	**0.544**
		CV %	0.7	0.7	0.6	0.7	**0.7**

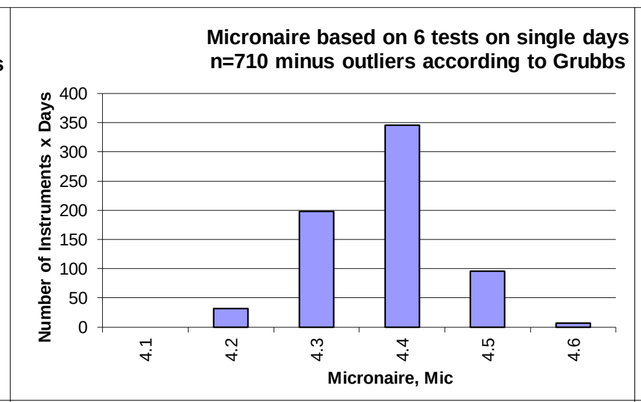
Color Rd							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			78.342	76.273	76.201	80.120	
Reference Values for Evaluation			78.342	76.273	76.201	80.120	
Number Of Instruments			141	141	141	141	**141**
Inter-Instrument Variation	based on 30 tests	SD	0.806	0.737	0.865	0.823	**0.808**
		CV %	1.0	1.0	1.1	1.0	**1.0**
	based on 6 tests	SD	0.838	0.750	0.845	0.905	**0.835**
		CV %	1.1	1.0	1.1	1.1	**1.1**
	based on single tests	SD	0.876	0.808	0.900	0.945	**0.882**
		CV %	1.1	1.1	1.2	1.2	**1.1**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.140	0.184	0.153	0.142	**0.155**
		CV %	0.2	0.2	0.2	0.2	**0.2**
	between single tests on one day	SD	0.195	0.199	0.201	0.180	**0.194**
		CV %	0.2	0.3	0.3	0.2	**0.2**
	between all tests on different days	SD	0.271	0.296	0.270	0.244	**0.270**
		CV %	0.3	0.4	0.4	0.3	**0.3**

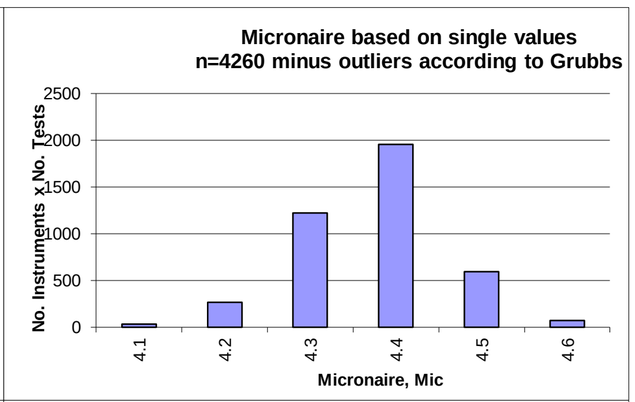
Color +b							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			11.881	11.118	13.351	9.501	
Reference Values for Evaluation			11.881	11.118	13.351	9.501	
Number Of Instruments			141	141	141	141	**141**
Inter-Instrument Variation	based on 30 tests	SD	0.342	0.282	0.375	0.248	**0.312**
		CV %	2.9	2.5	2.8	2.6	**2.7**
	based on 6 tests	SD	0.369	0.312	0.395	0.259	**0.334**
		CV %	3.1	2.8	3.0	2.7	**2.9**
	based on single tests	SD	0.384	0.345	0.426	0.284	**0.360**
		CV %	3.2	3.1	3.2	3.0	**3.1**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.089	0.095	0.109	0.081	**0.094**
		CV %	0.7	0.9	0.8	0.9	**0.8**
	between single tests on one day	SD	0.100	0.123	0.112	0.087	**0.105**
		CV %	0.8	1.1	0.8	0.9	**0.9**
	between all tests on different days	SD	0.153	0.167	0.159	0.130	**0.152**
		CV %	1.3	1.5	1.2	1.4	**1.3**

Test Result Distributions
Micronaire

Cotton 1







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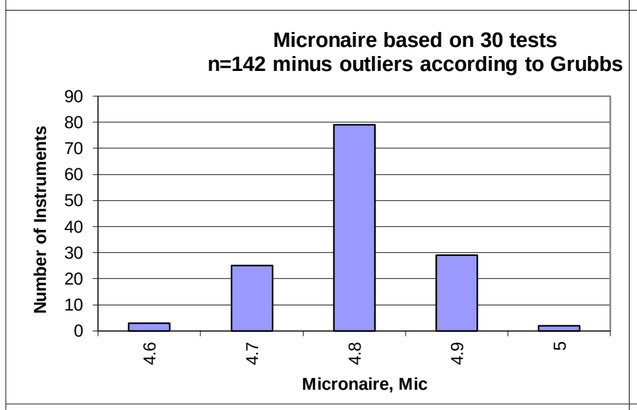

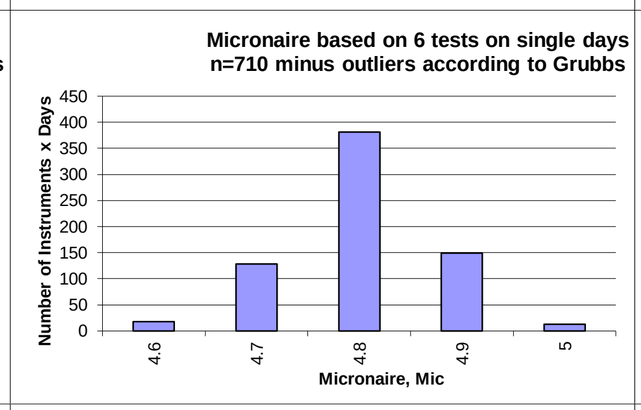

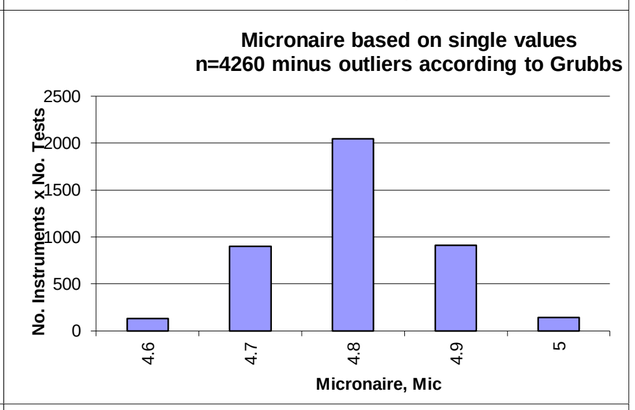

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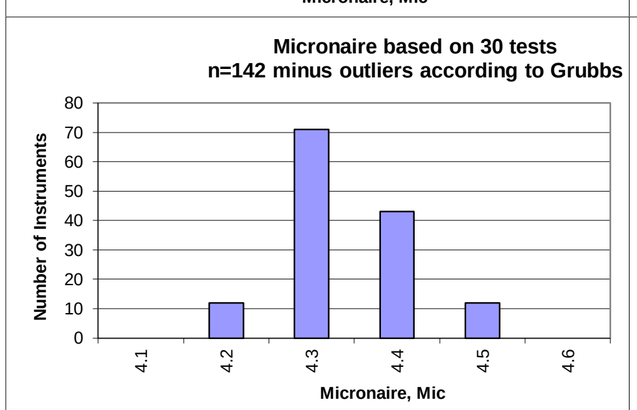
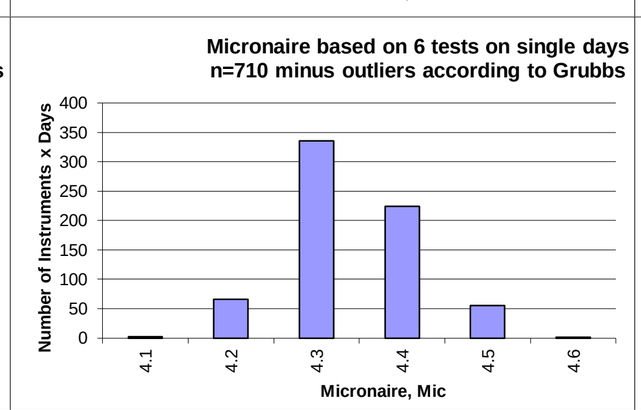
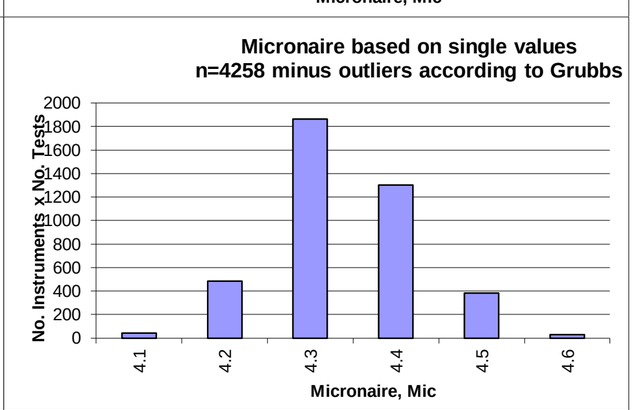
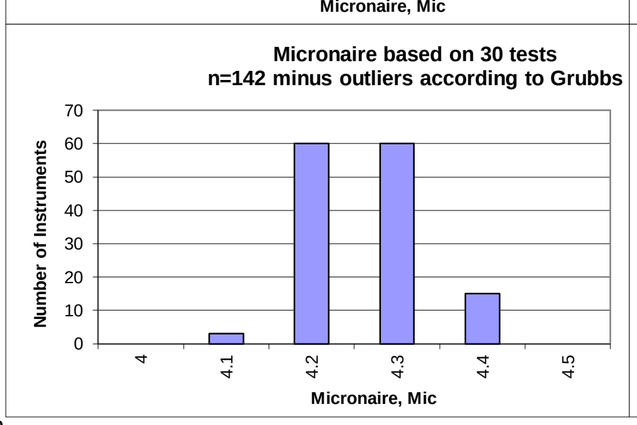
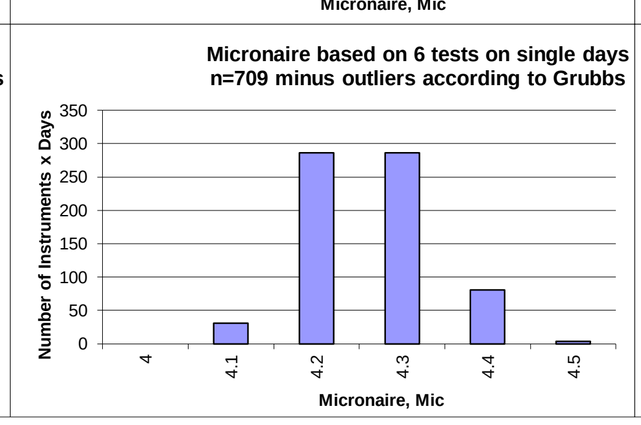


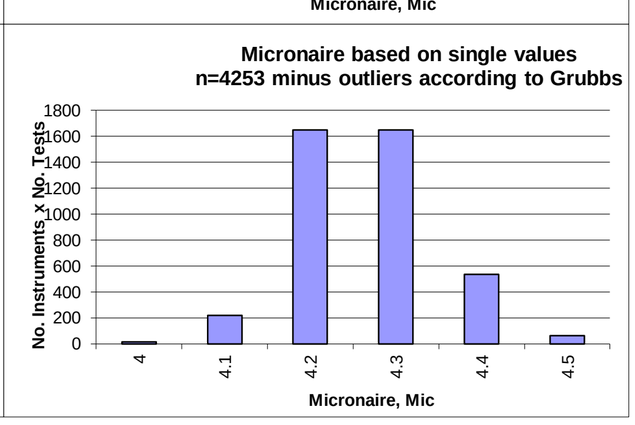




Cotton 4







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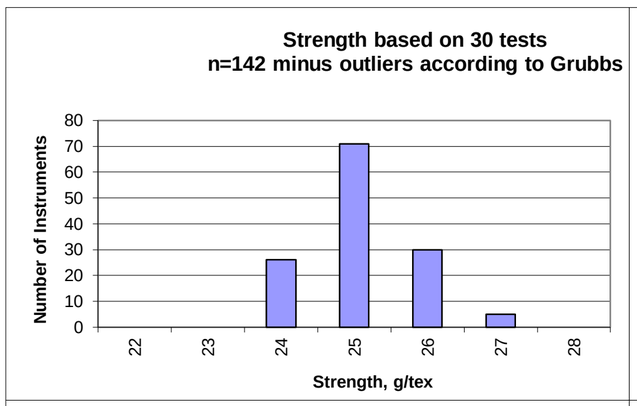
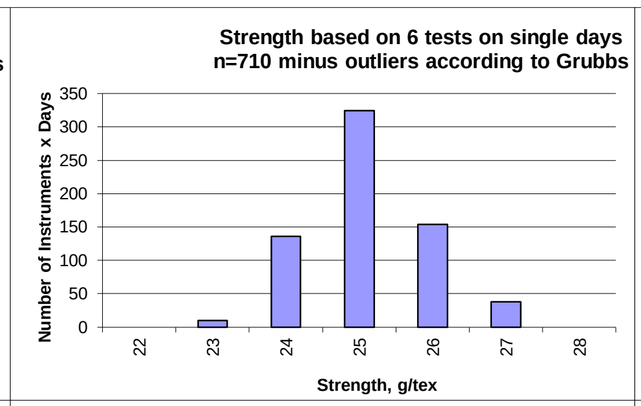
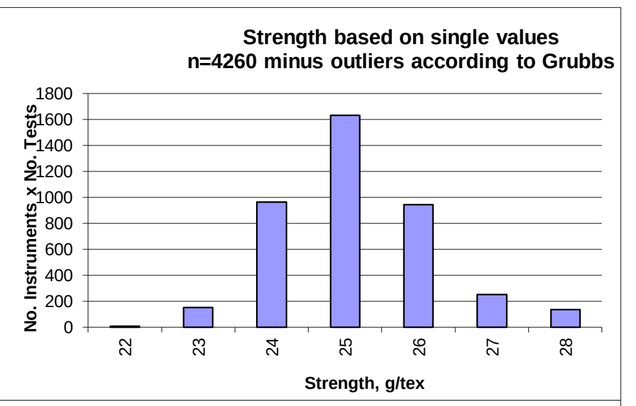
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method.)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Strength

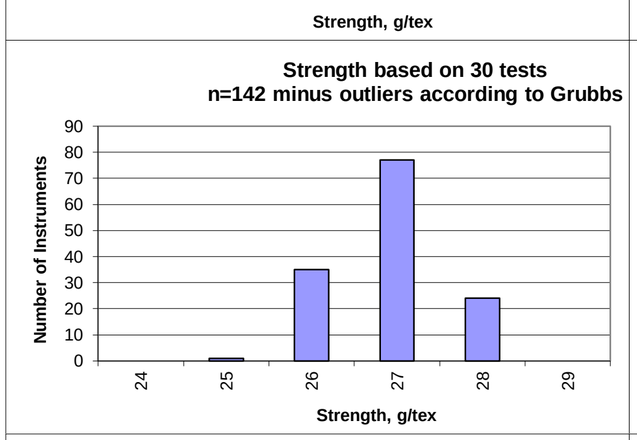
Cotton 1

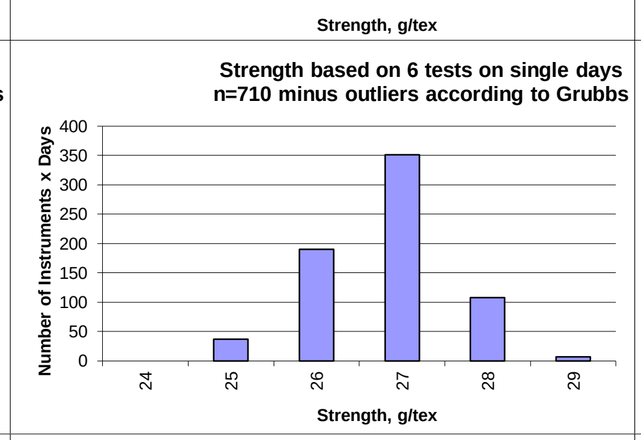


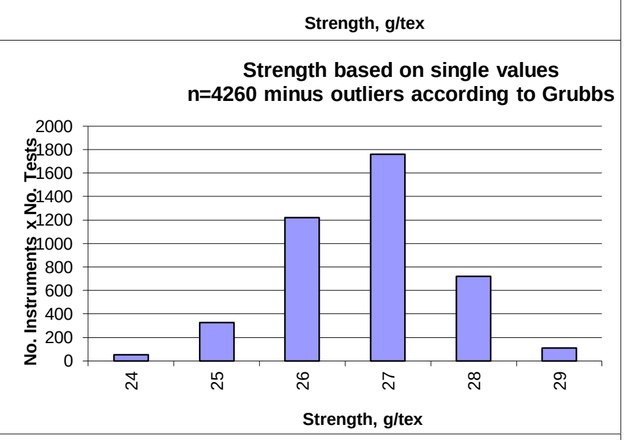




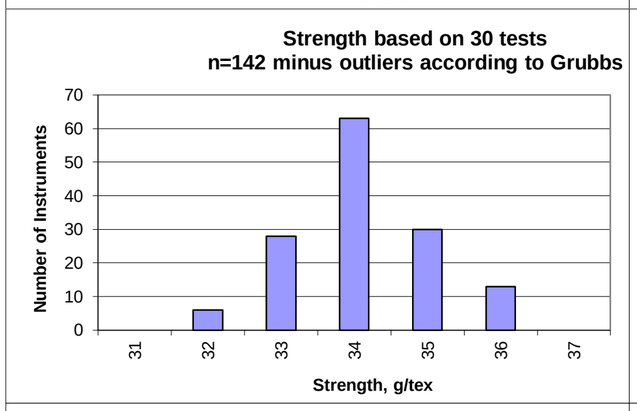
Cotton 2

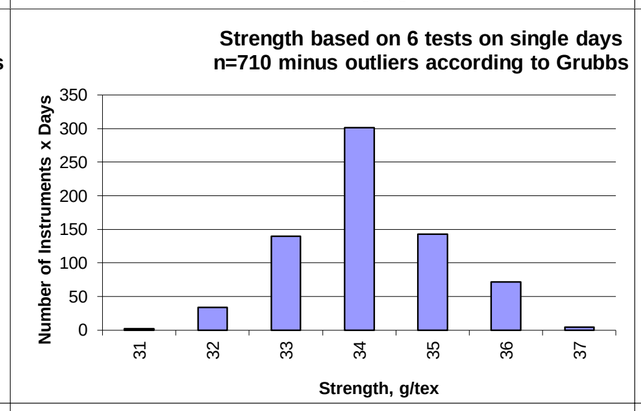


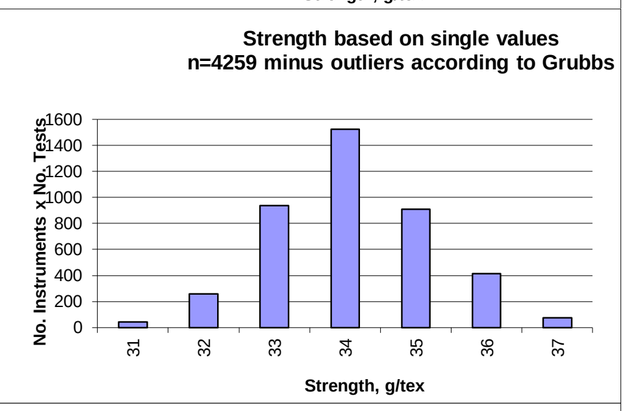




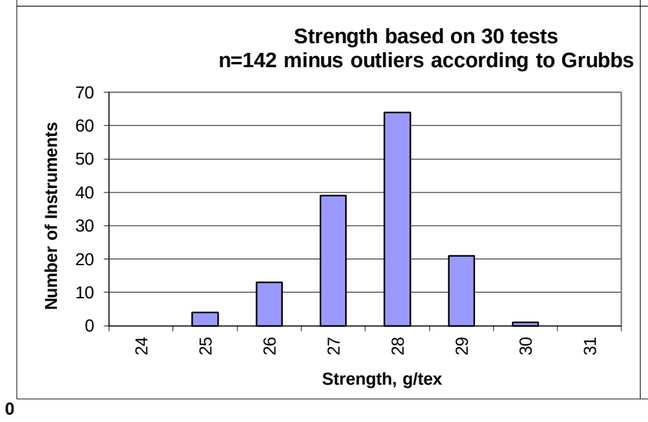
Cotton 3

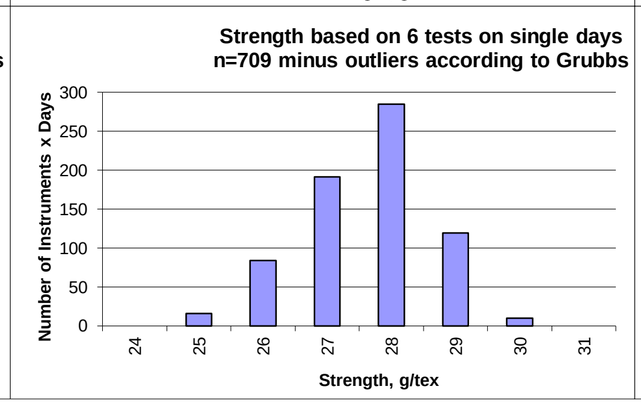


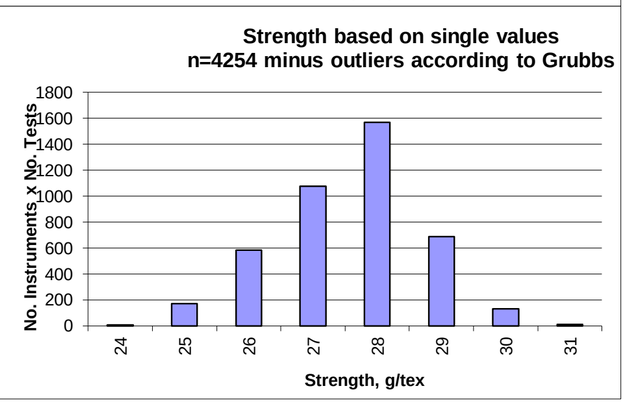




Cotton 4







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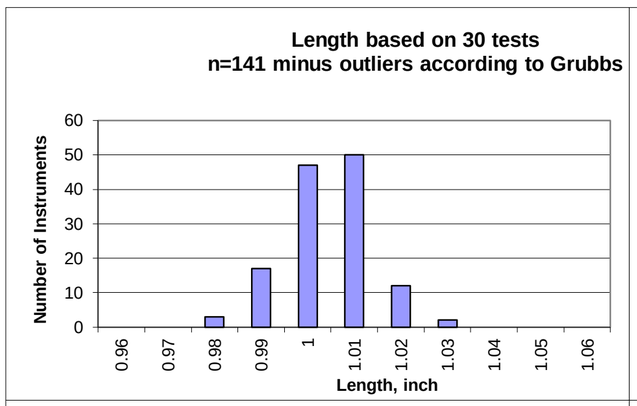
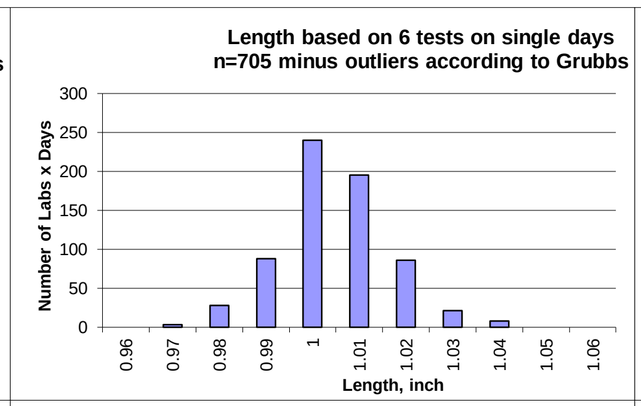
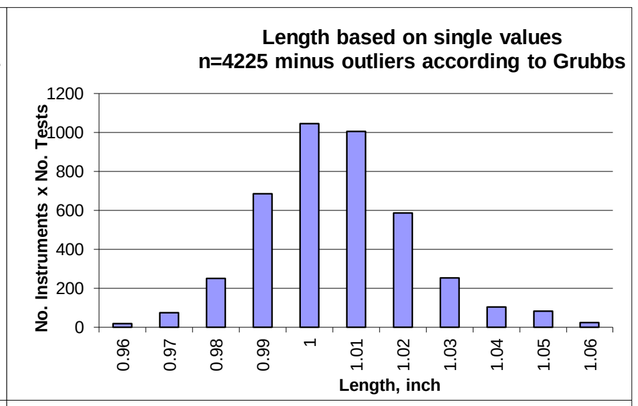
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Length

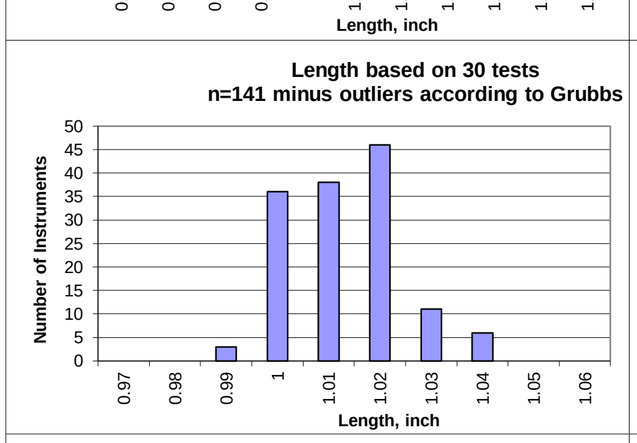
Cotton 1

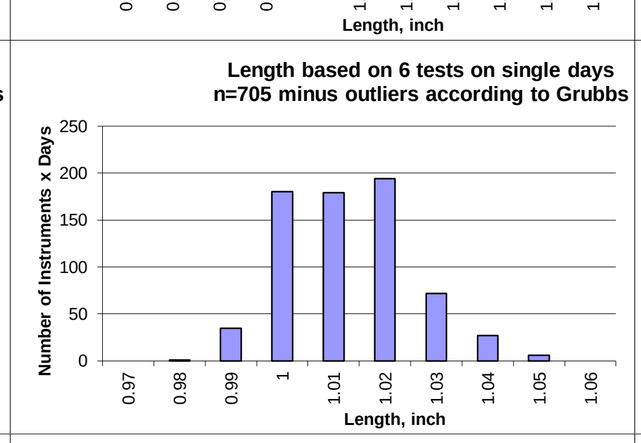


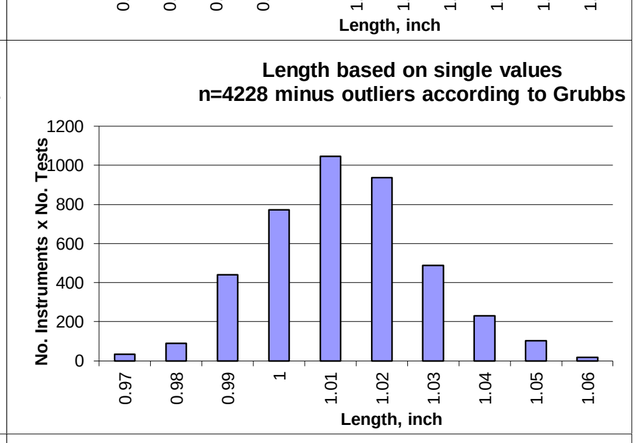




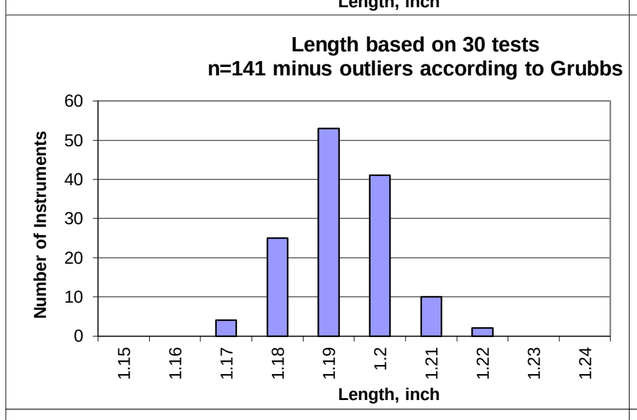
Cotton 2

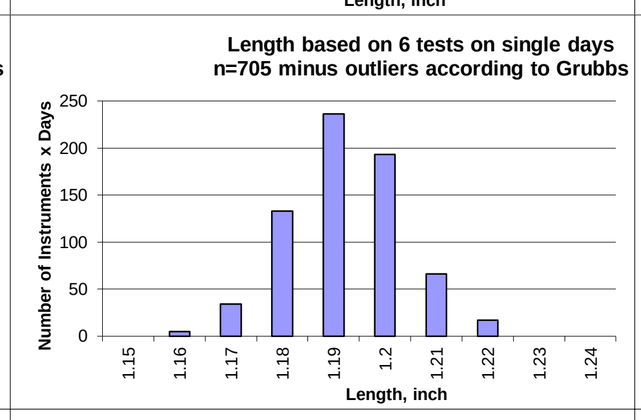


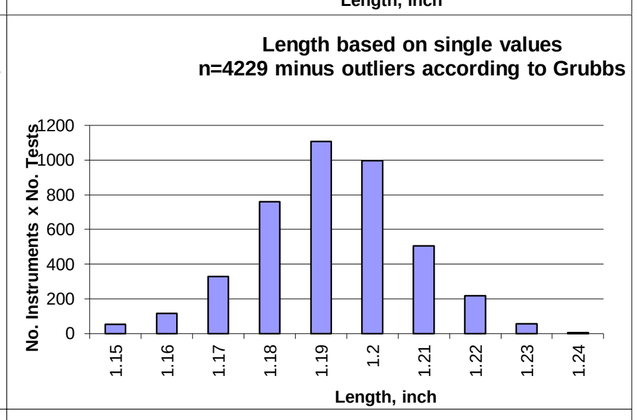




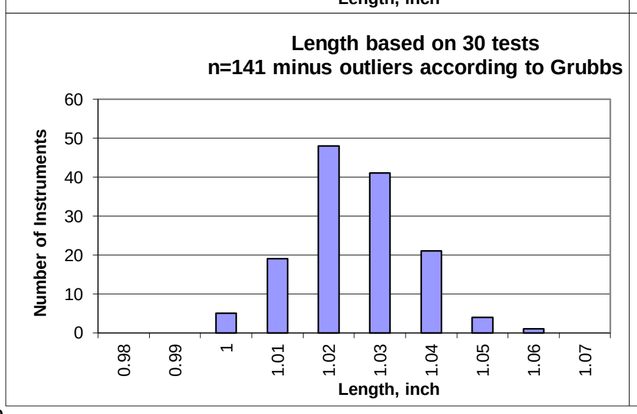
Cotton 3

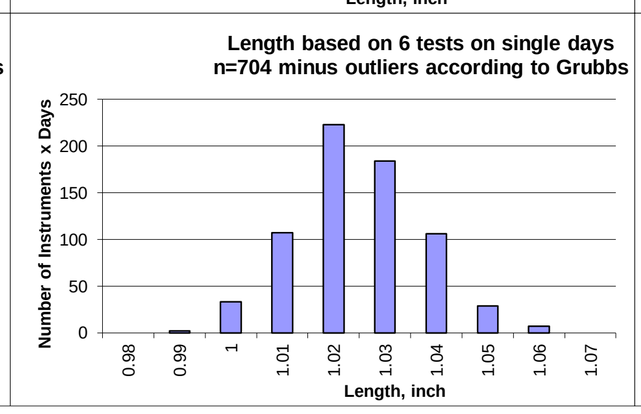


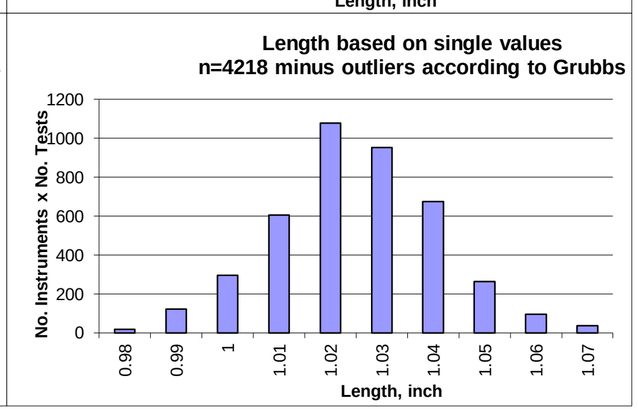




Cotton 4







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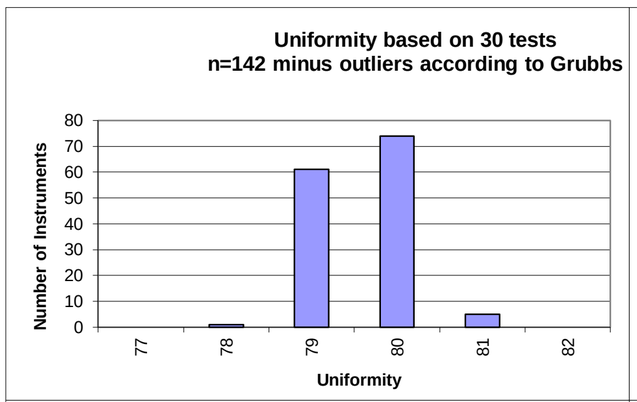
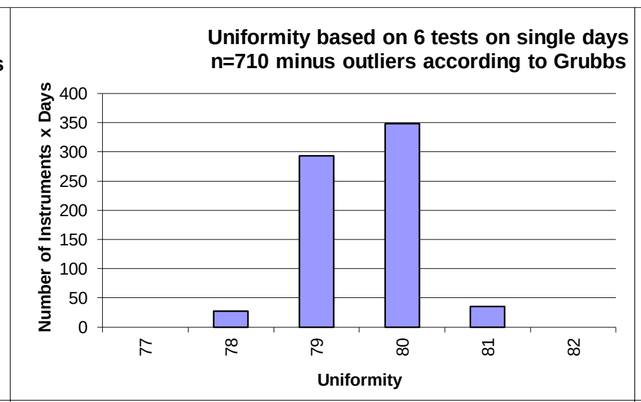
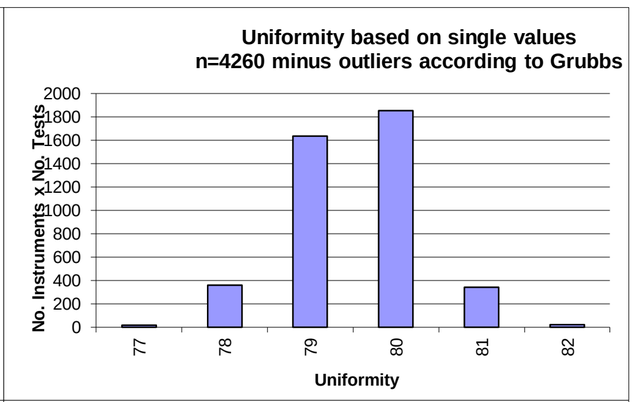
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Uniformity

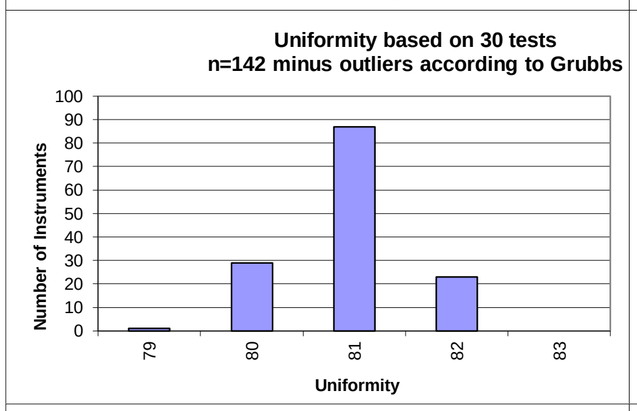
Cotton 1

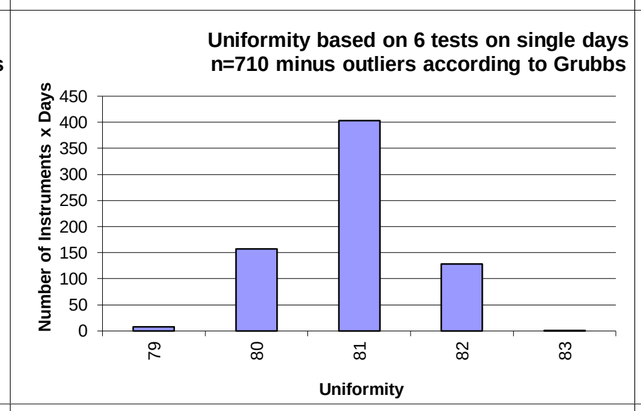


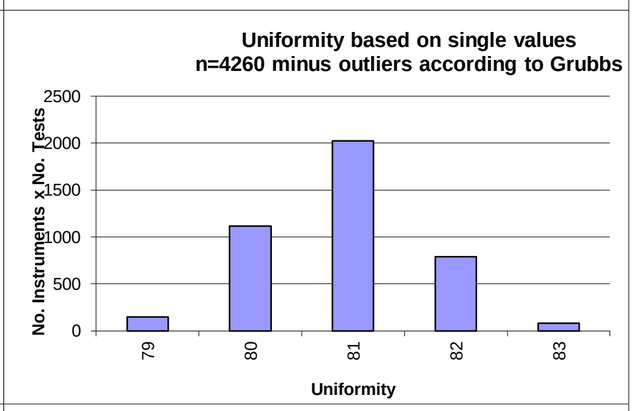




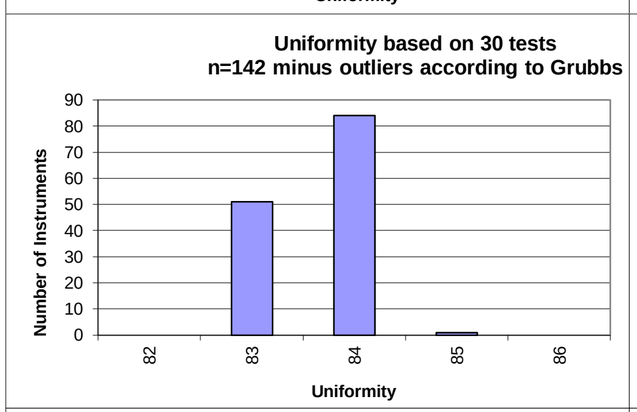
Cotton 2

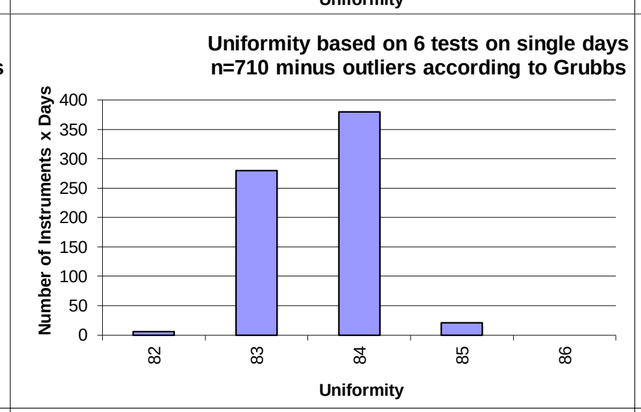


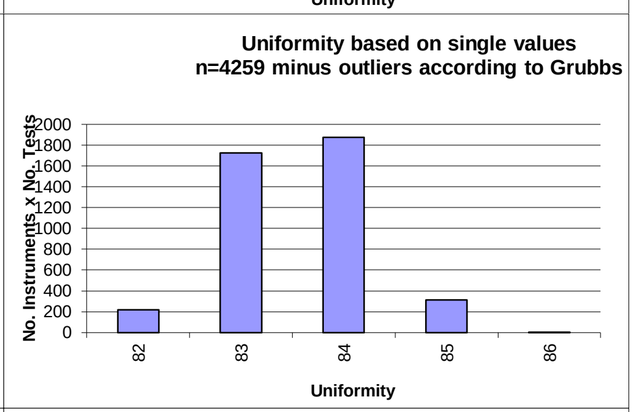




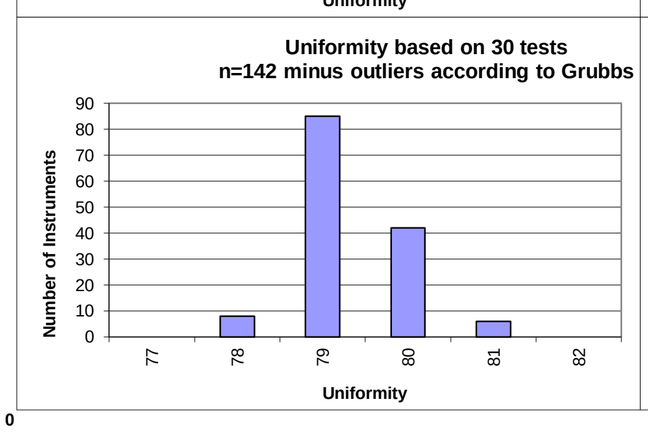
Cotton 3

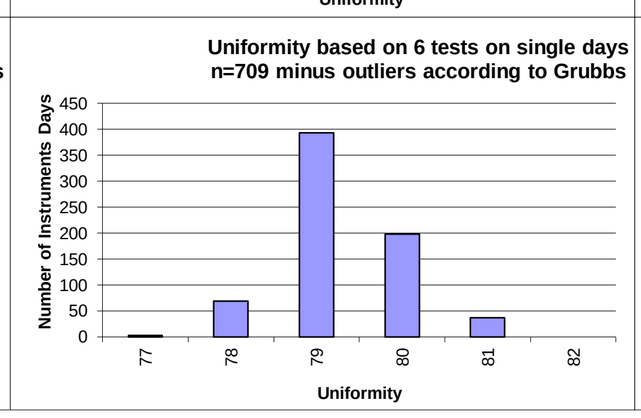


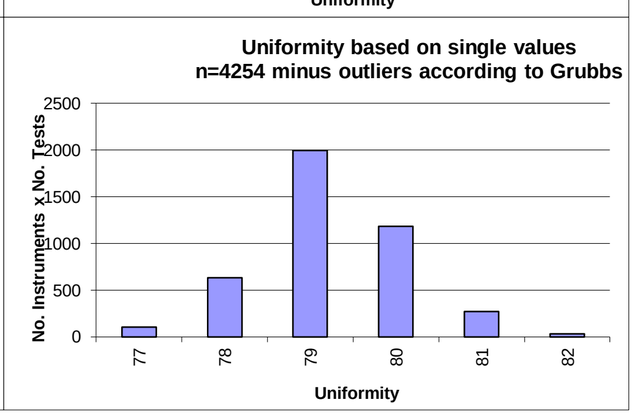




Cotton 4







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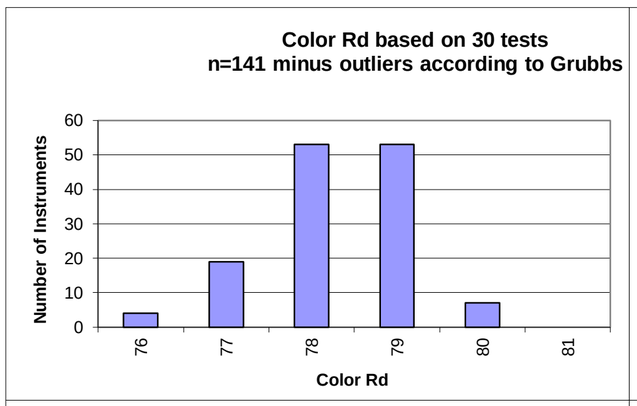
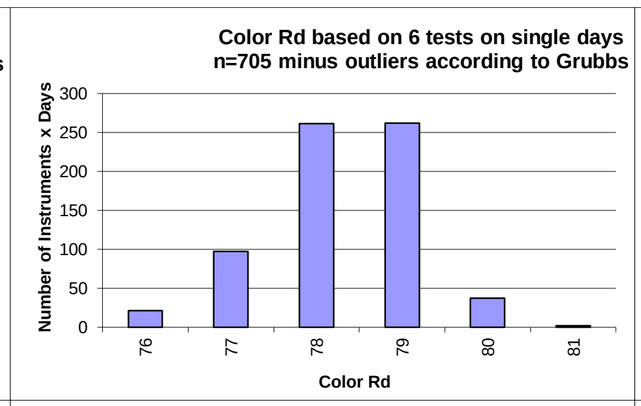
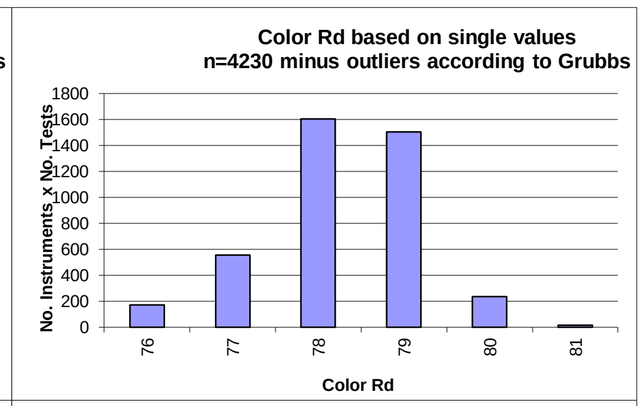
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Color Rd

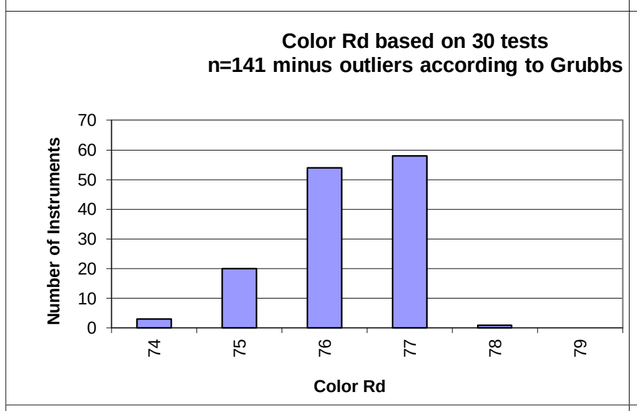
Cotton 1

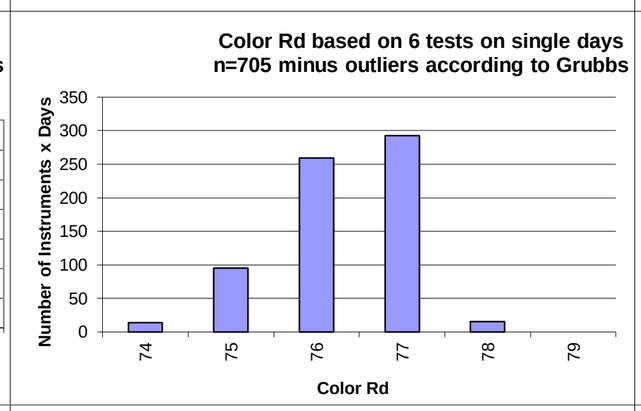


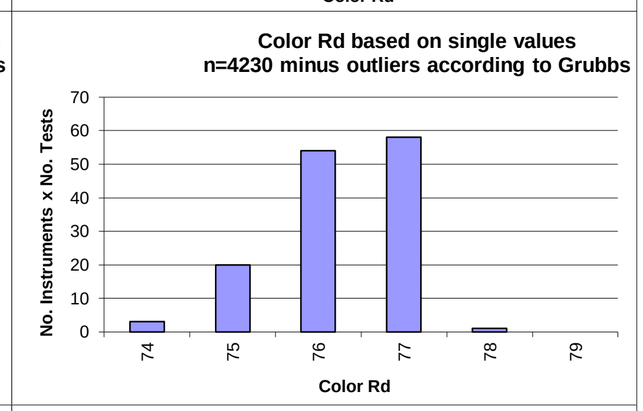




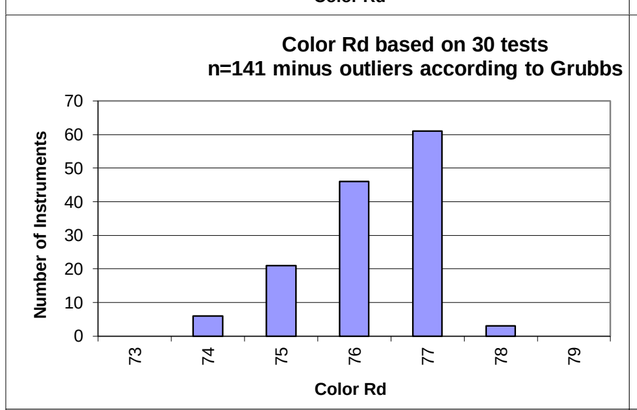
Cotton 2

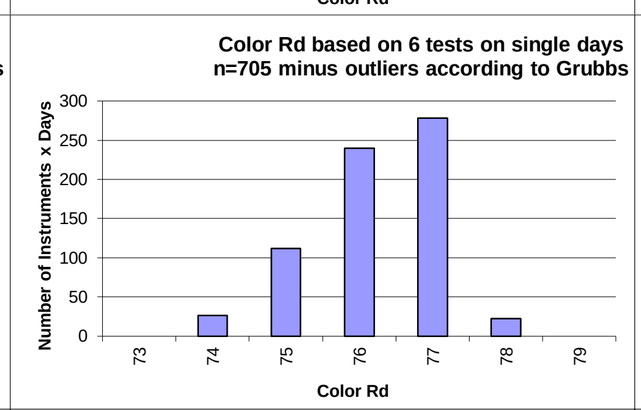


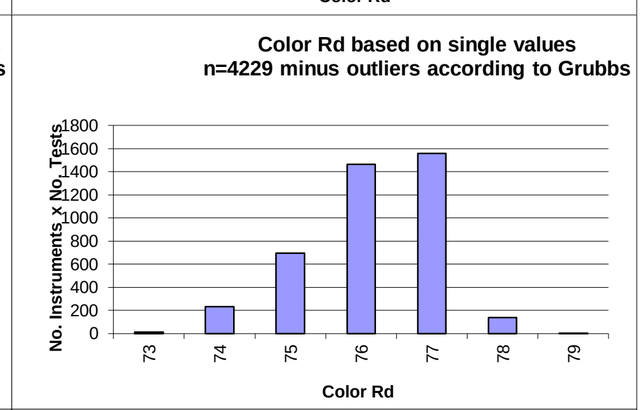




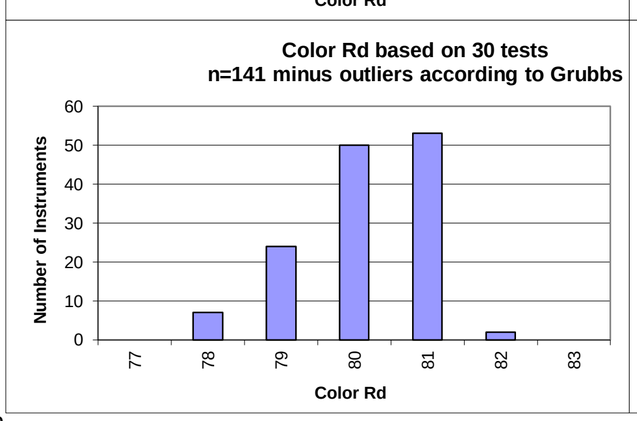
Cotton 3

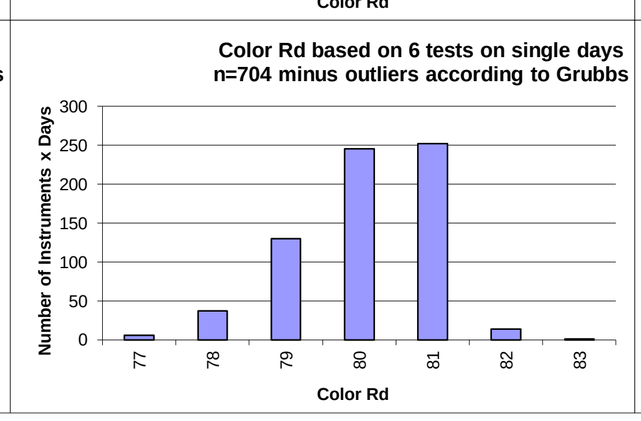


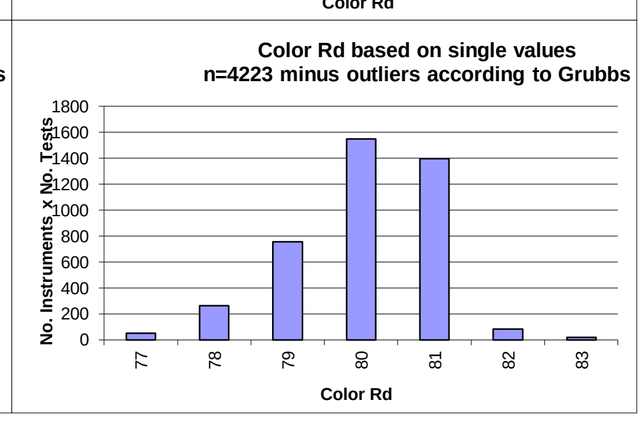




Cotton 4







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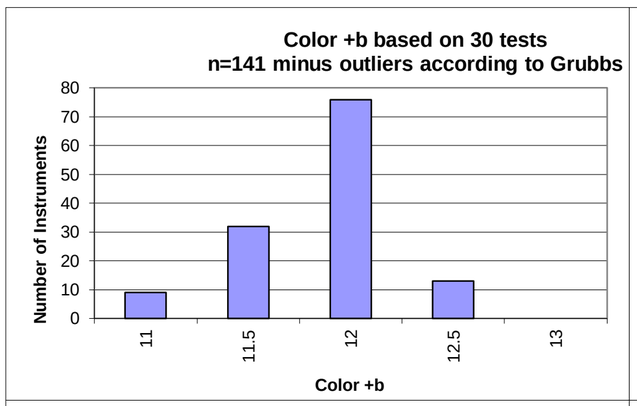
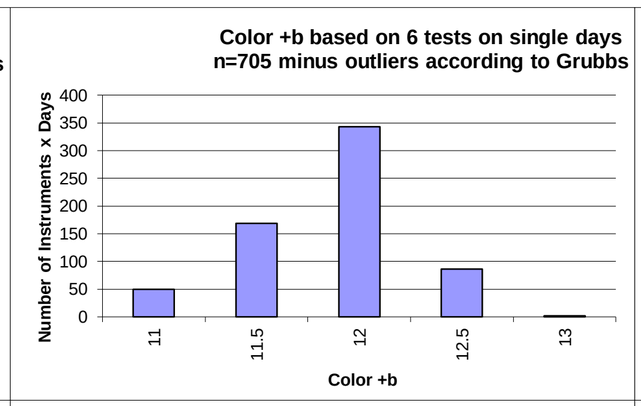
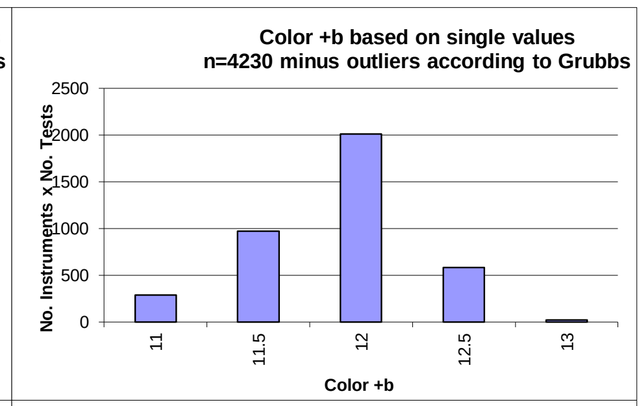
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Color +b

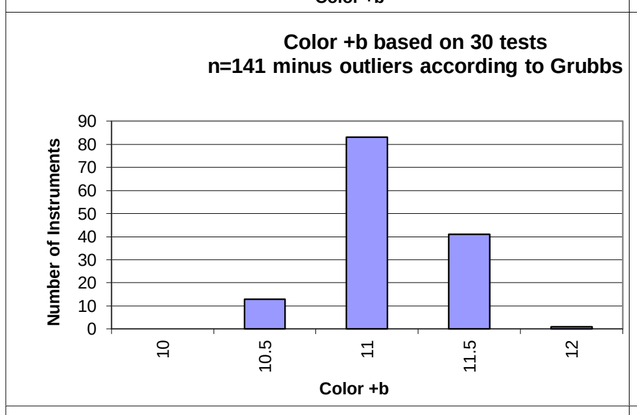
Cotton 1

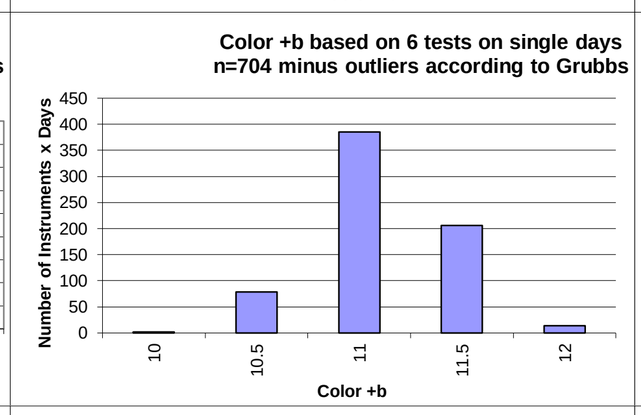


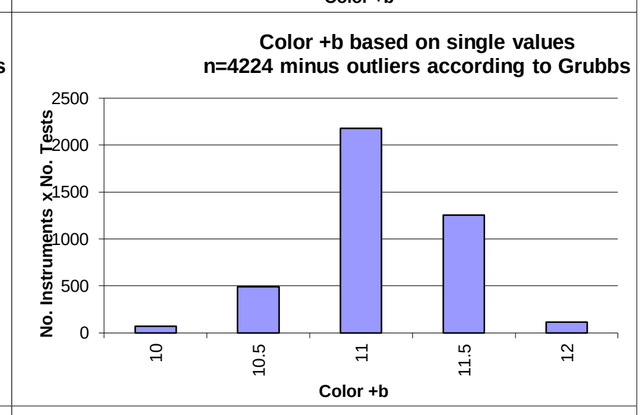




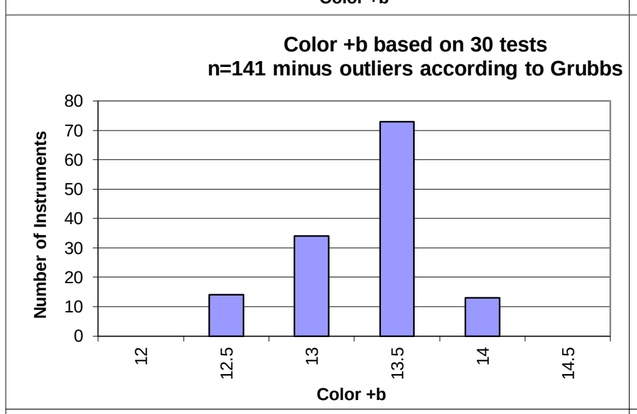
Cotton 2

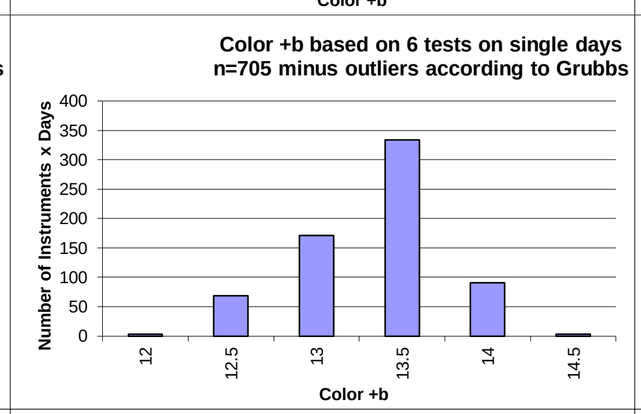


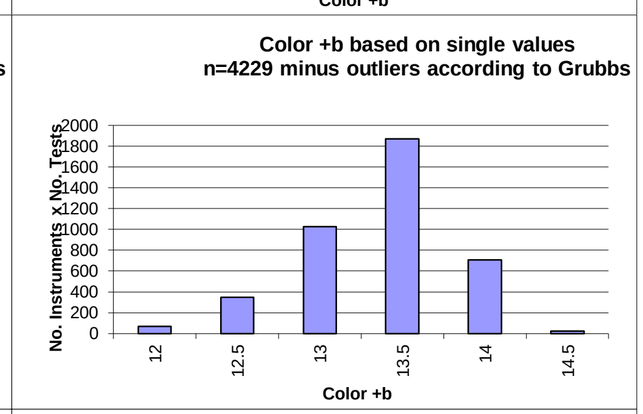




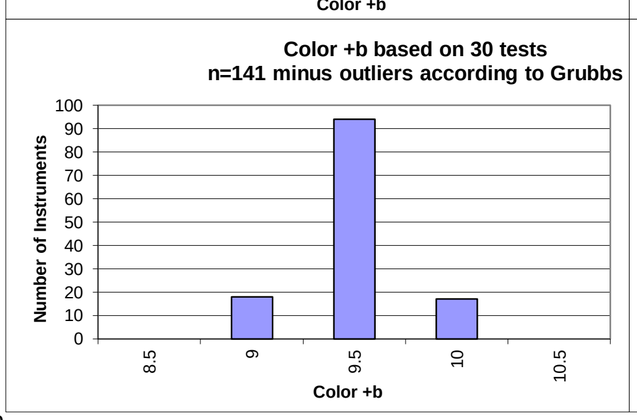
Cotton 3

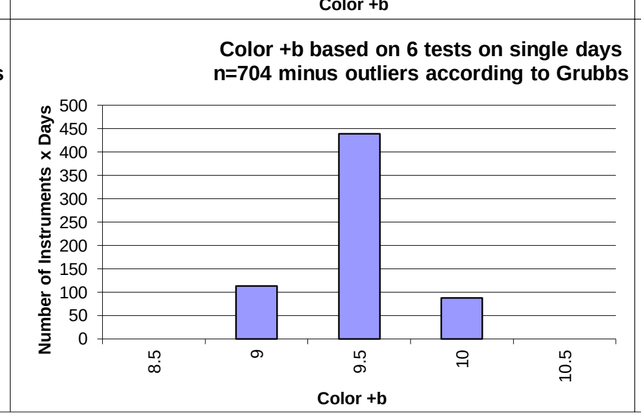


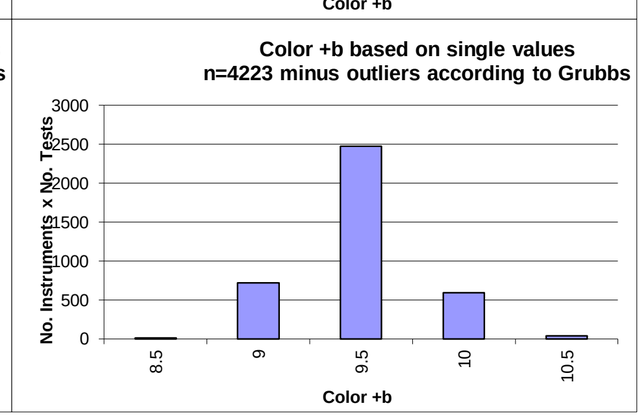




Cotton 4







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)			16.35	20.47	15.96	10.28	
Reference Values for Evaluation			16.35	20.47	15.96	10.28	
Number Of Instruments			94	93	93	93	**93**
Inter-Instrument Variation	based on 30 tests	SD	5.91	6.72	6.30	4.40	**5.83**
		CV %	36.1	32.8	39.5	42.8	**37.8**
	based on 6 tests	SD	5.63	6.86	6.56	4.34	**5.85**
		CV %	34.4	33.5	41.1	42.2	**37.8**
	based on single tests	SD	6.28	7.29	6.88	4.72	**6.29**
		CV %	38.4	35.6	43.1	45.9	**40.8**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	1.69	2.28	1.84	1.25	**1.77**
		CV %	10.3	11.1	11.6	12.2	**11.3**
	between single tests on one day	SD	2.16	2.32	1.84	1.56	**1.97**
		CV %	13.2	11.3	11.5	15.2	**12.8**
	between all tests on different days	SD	2.78	3.77	3.08	2.12	**2.94**
		CV %	17.0	18.4	19.3	20.6	**18.8**

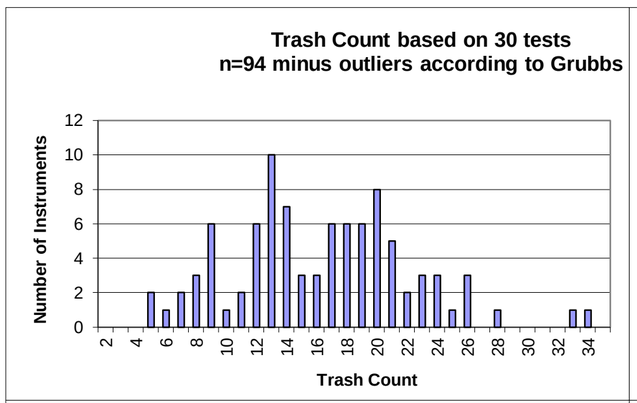
Trash Area							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			0.155	0.220	0.149	0.103	
Reference Values for Evaluation			0.155	0.220	0.149	0.103	
Number Of Instruments			94	94	94	94	**94**
Inter-Instrument Variation	based on 30 tests	SD	0.043	0.057	0.051	0.027	**0.044**
		CV %	27.8	25.7	34.0	26.7	**28.5**
	based on 6 tests	SD	0.050	0.064	0.048	0.030	**0.048**
		CV %	32.2	29.1	32.4	29.3	**30.7**
	based on single tests	SD	0.060	0.075	0.059	0.037	**0.058**
		CV %	38.4	34.0	39.3	35.9	**36.9**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.021	0.026	0.024	0.015	**0.021**
		CV %	13.3	11.7	16.0	14.7	**13.9**
	between single tests on one day	SD	0.027	0.040	0.027	0.018	**0.028**
		CV %	17.6	18.2	18.2	17.2	**17.8**
	between all tests on different days	SD	0.037	0.052	0.042	0.026	**0.039**
		CV %	23.7	23.4	28.1	25.0	**25.1**

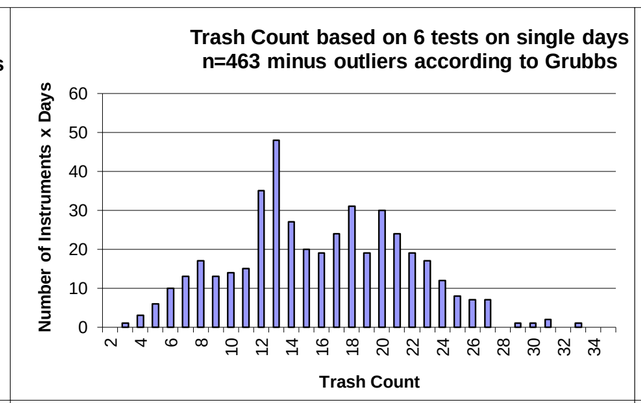
Maturity							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			85.06	86.23	85.62	83.33	
Reference Values for Evaluation			85.06	86.23	85.62	83.33	
Number Of Instruments			90	90	90	90	**90**
Inter-Instrument Variation	based on 30 tests	SD	1.70	1.54	2.13	2.61	**1.99**
		CV %	2.0	1.8	2.5	3.1	**2.4**
	based on 6 tests	SD	1.67	1.57	1.94	2.59	**1.94**
		CV %	2.0	1.8	2.3	3.1	**2.3**
	based on single tests	SD	1.76	1.60	2.01	2.59	**1.99**
		CV %	2.1	1.9	2.3	3.1	**2.3**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.20	0.21	0.19	0.28	**0.22**
		CV %	0.2	0.2	0.2	0.3	**0.3**
	between single tests on one day	SD	0.29	0.31	0.37	0.34	**0.33**
		CV %	0.3	0.4	0.4	0.4	**0.4**
	between all tests on different days	SD	0.43	0.46	0.48	0.48	**0.46**
		CV %	0.5	0.5	0.6	0.6	**0.5**

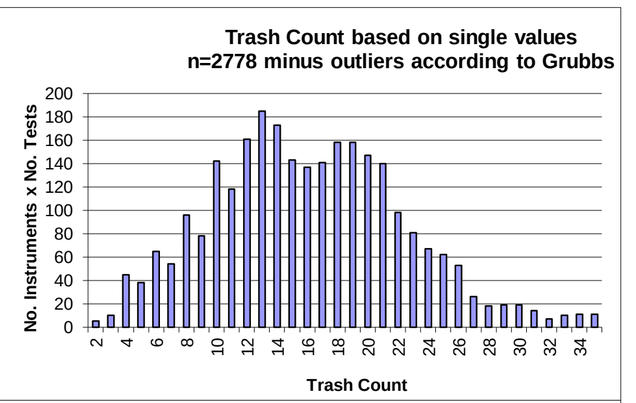
SFI							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			12.48	10.27	7.46	12.39	
Reference Values for Evaluation			12.48	10.27	7.46	12.39	
Number Of Instruments			105	105	105	105	**105**
Inter-Instrument Variation	based on 30 tests	SD	1.15	1.19	0.77	1.07	**1.04**
		CV %	9.2	11.6	10.3	8.7	**9.9**
	based on 6 tests	SD	1.24	1.26	0.75	1.16	**1.10**
		CV %	9.9	12.3	10.0	9.4	**10.4**
	based on single tests	SD	1.35	1.38	0.82	1.42	**1.24**
		CV %	10.8	13.4	11.0	11.5	**11.7**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.39	0.29	0.19	0.36	**0.31**
		CV %	3.1	2.8	2.6	2.9	**2.9**
	between single tests on one day	SD	0.62	0.53	0.31	0.63	**0.52**
		CV %	5.0	5.1	4.1	5.1	**4.8**
	between all tests on different days	SD	0.74	0.61	0.36	0.73	**0.61**
		CV %	5.9	6.0	4.9	5.9	**5.7**

Test Result Distributions
Trash Count

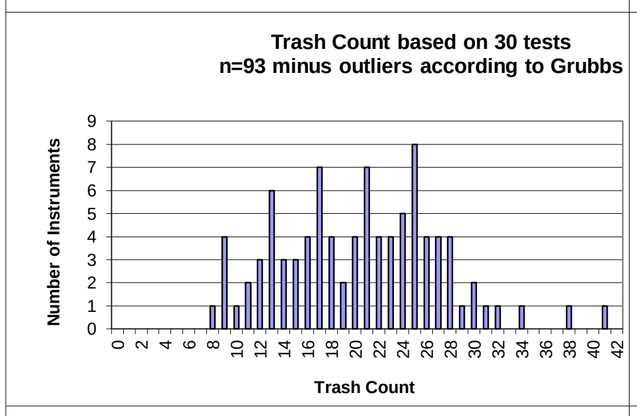
Cotton 1

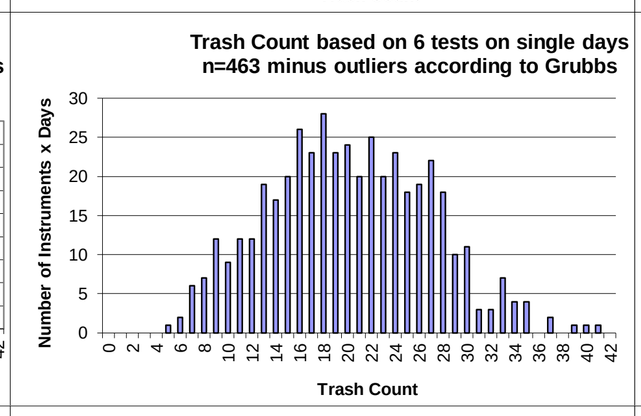


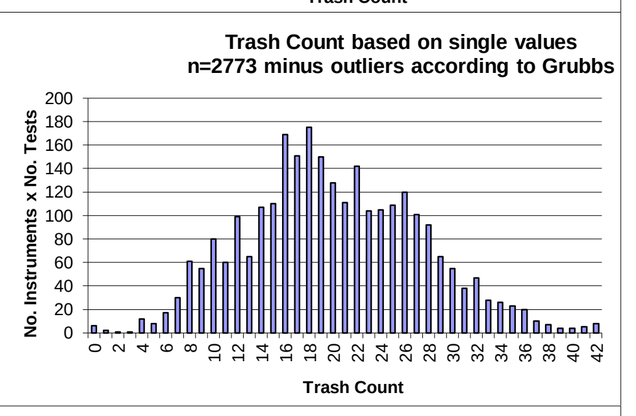




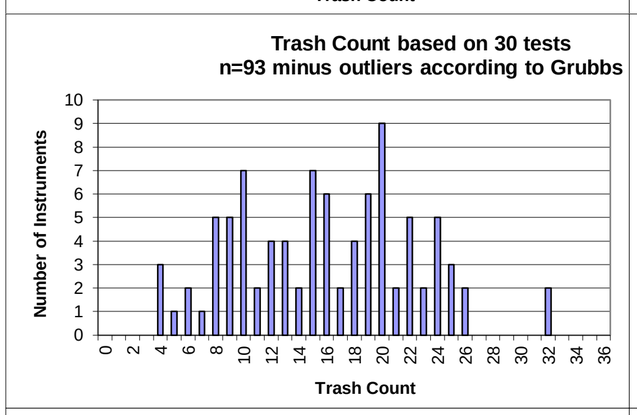
Cotton 2

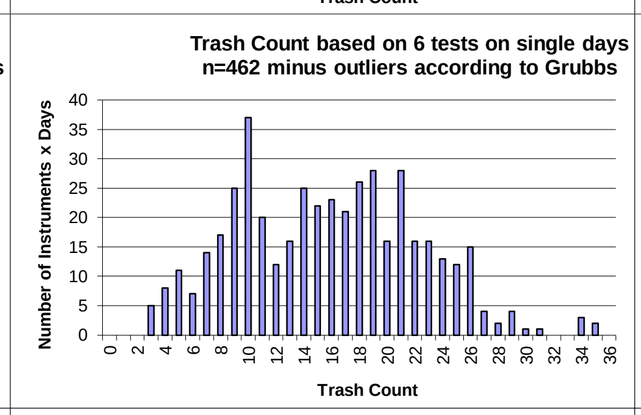


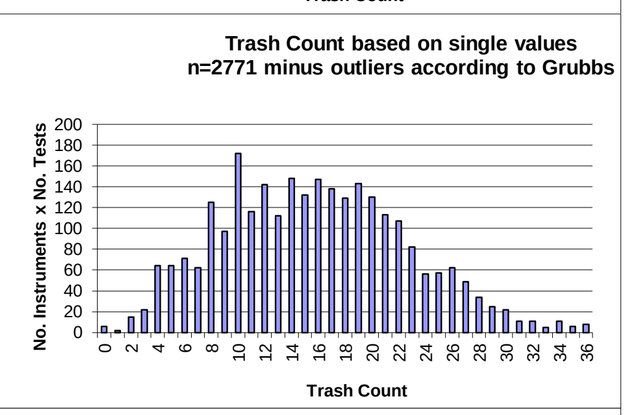




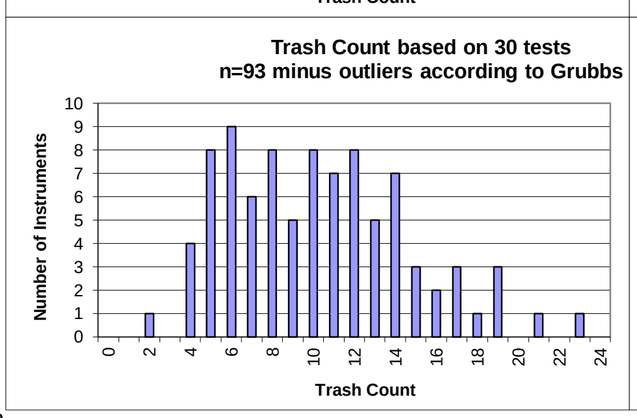
Cotton 3

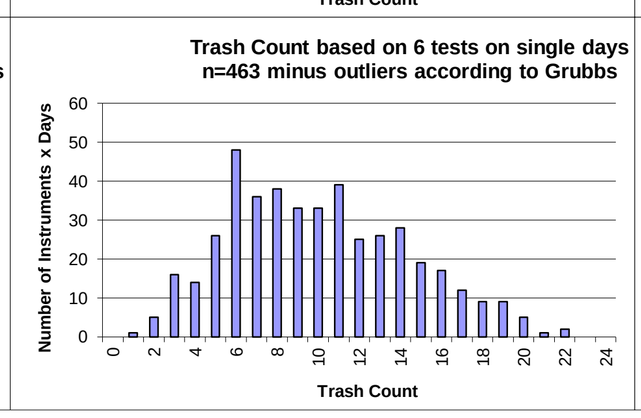


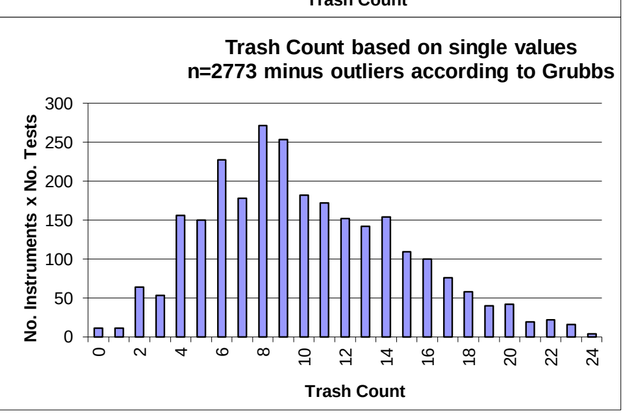




Cotton 4







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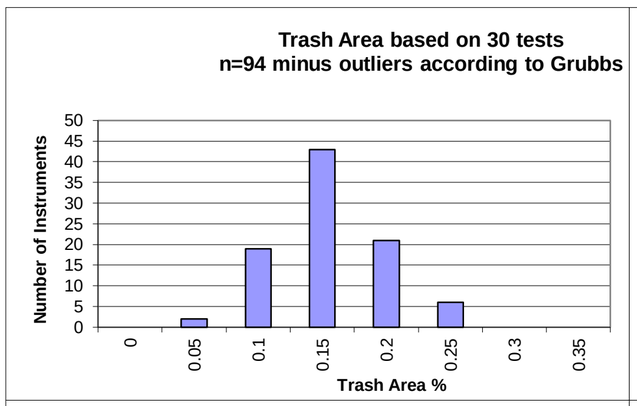
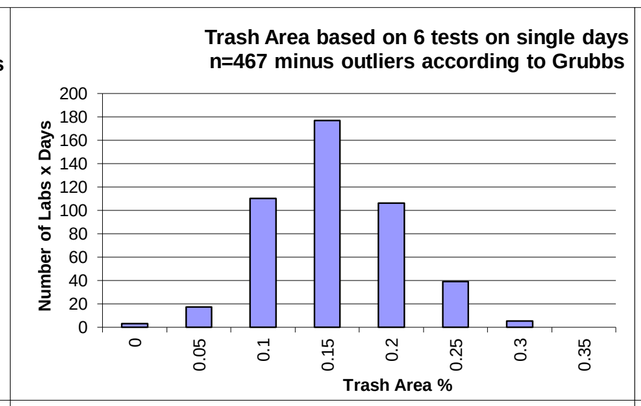
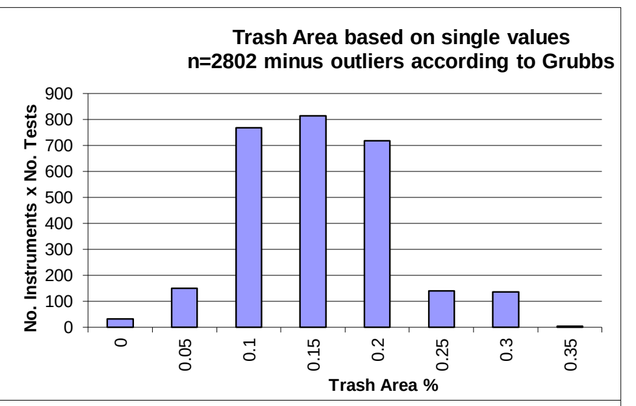
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Trash Area

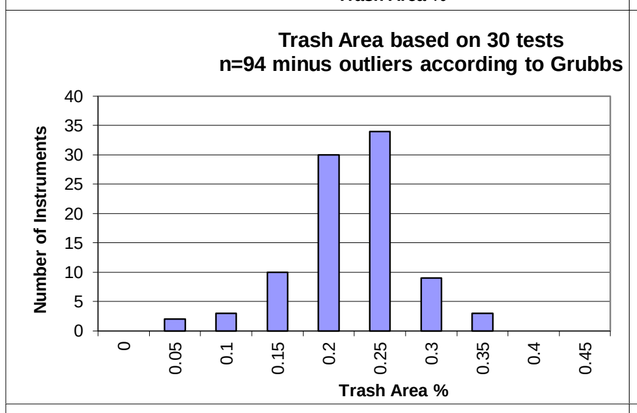
Cotton 1

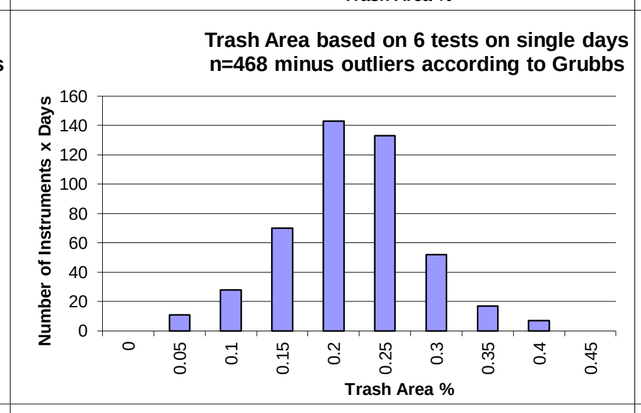


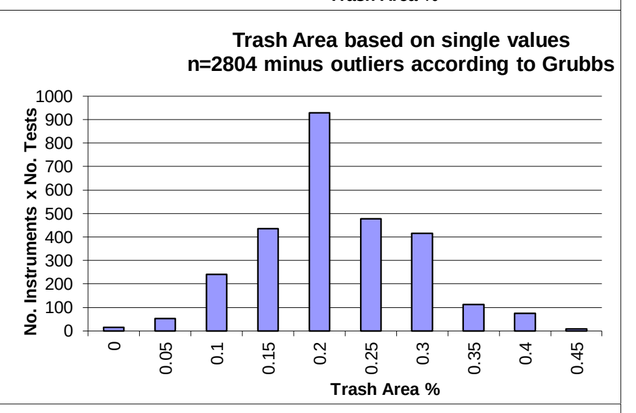




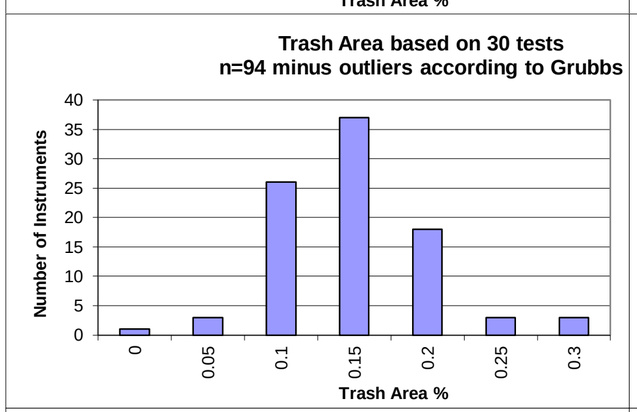
Cotton 2

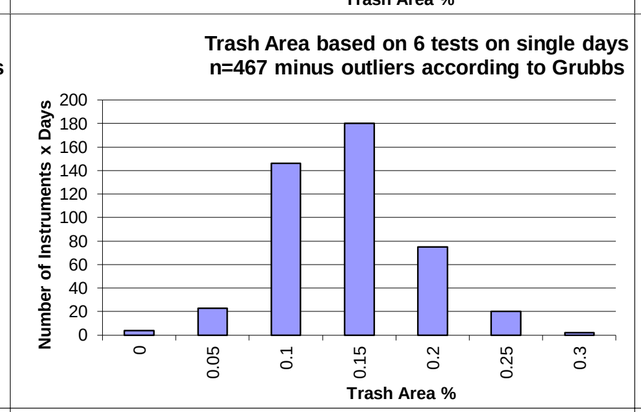


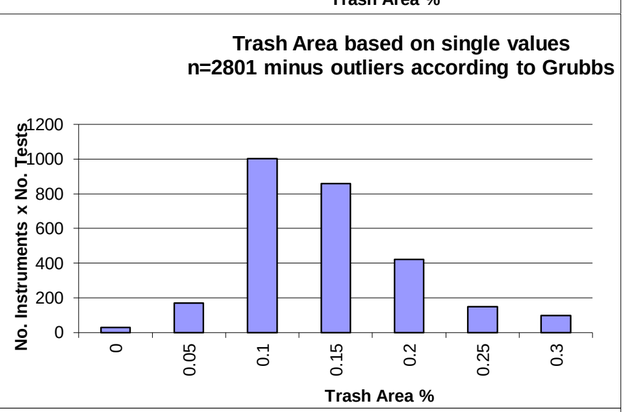




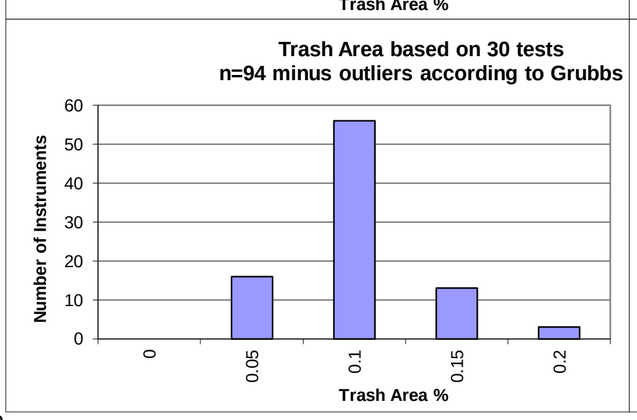
Cotton 3

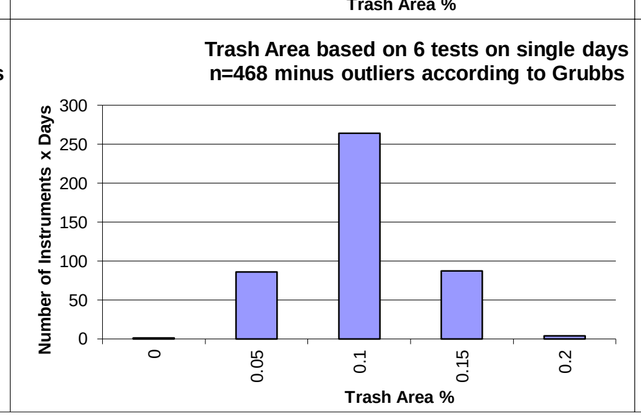


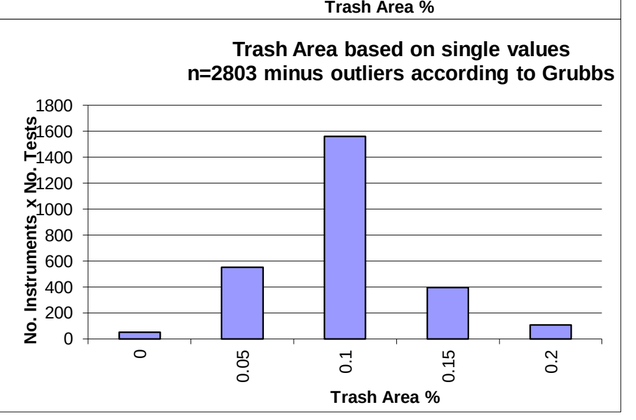




Cotton 4







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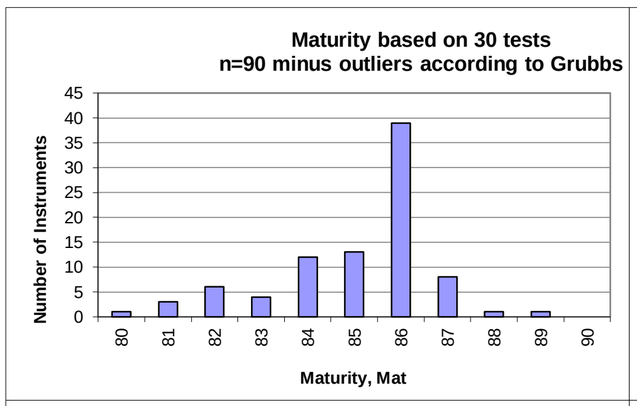
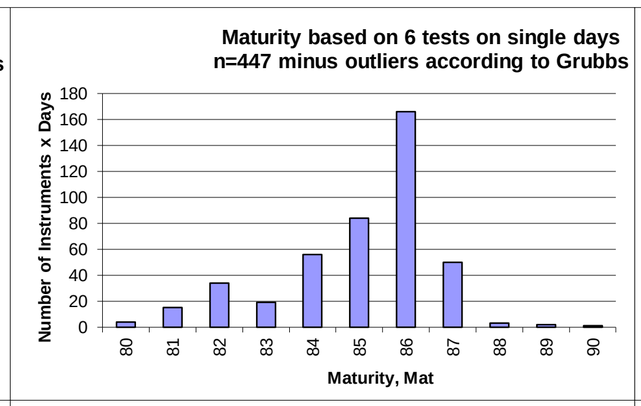
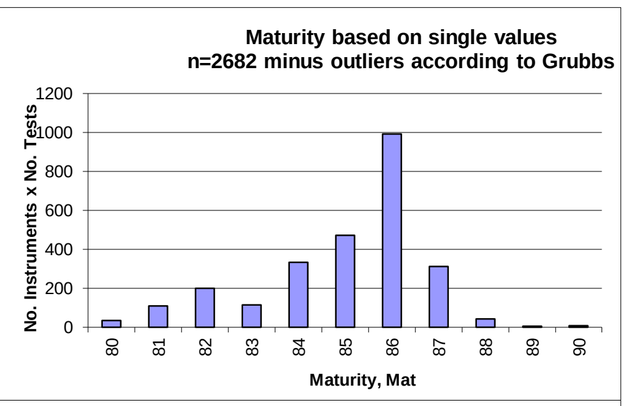
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Maturity

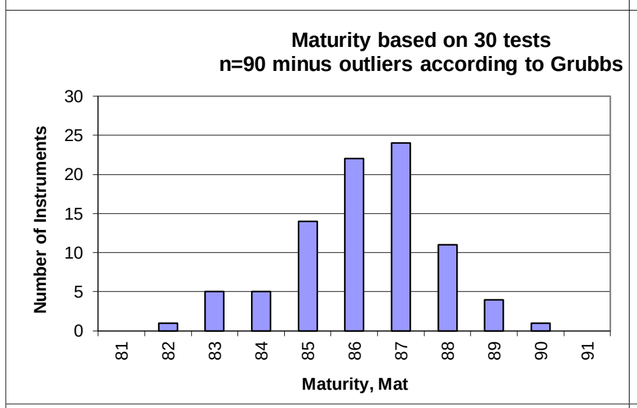
Cotton 1

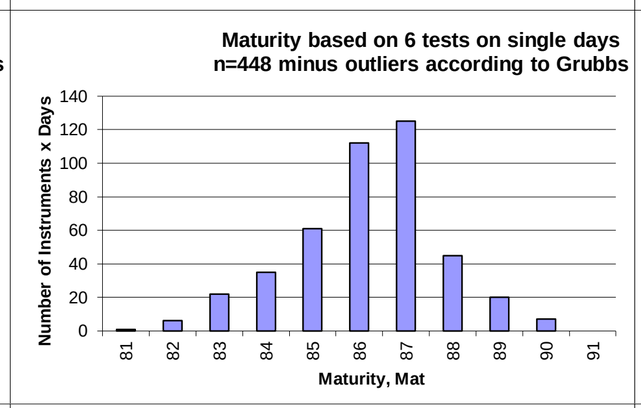


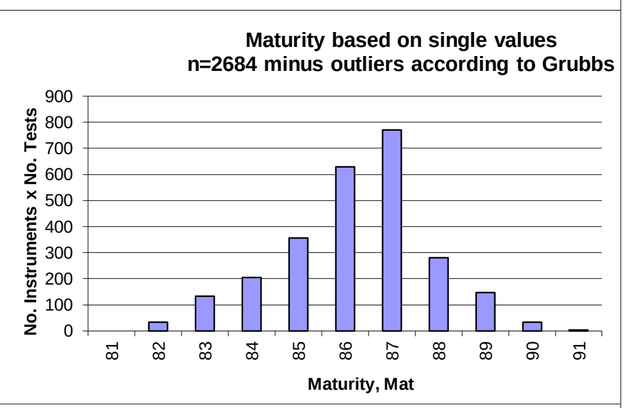




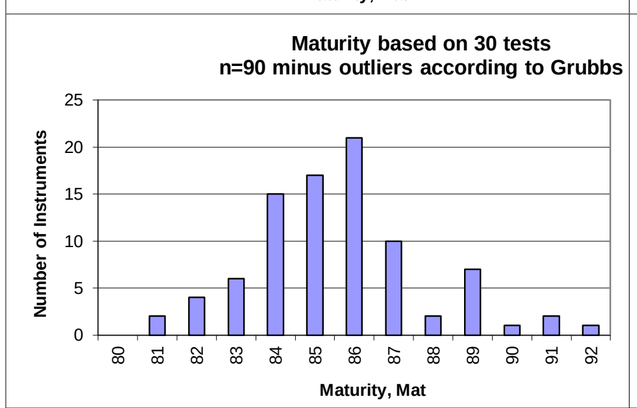
Cotton 2

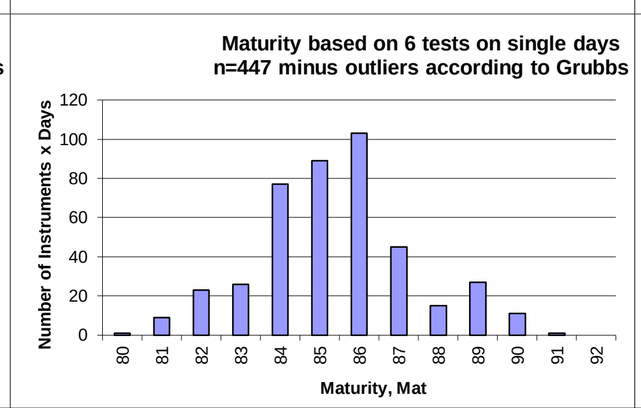


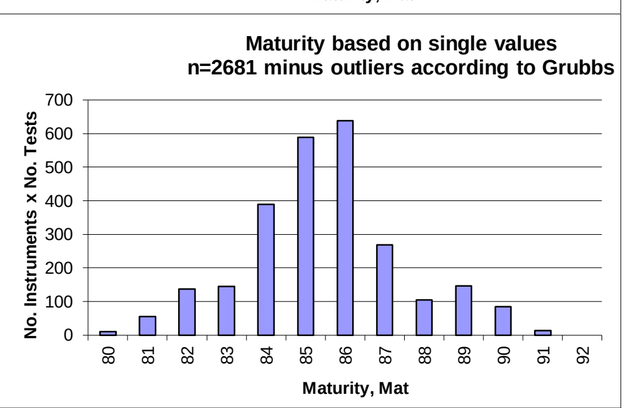




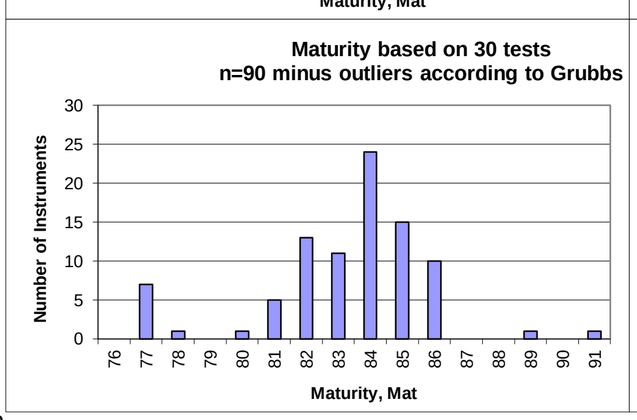
Cotton 3

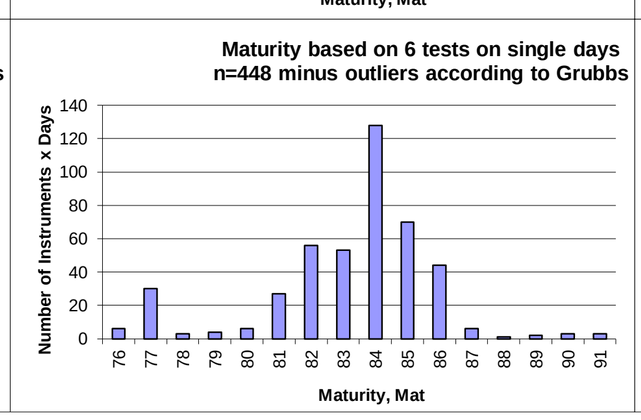


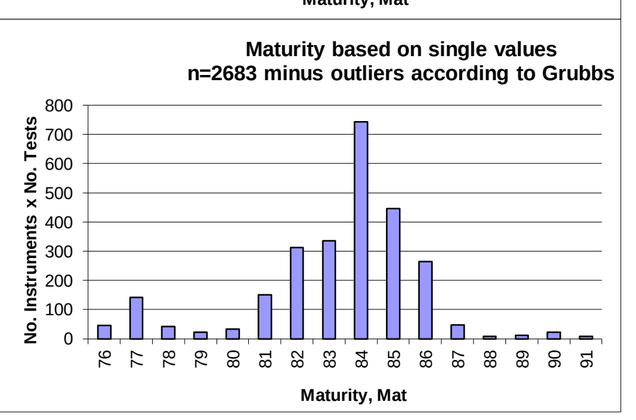




Cotton 4







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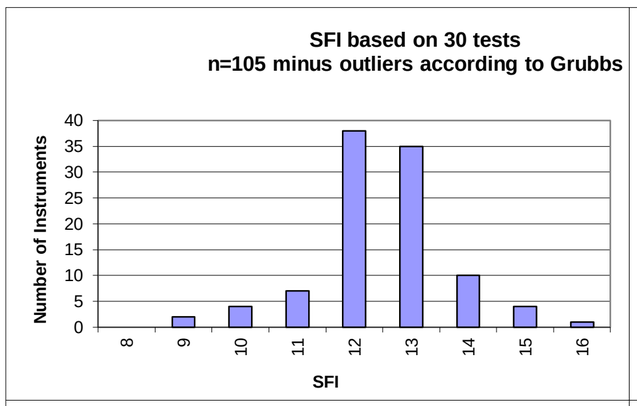
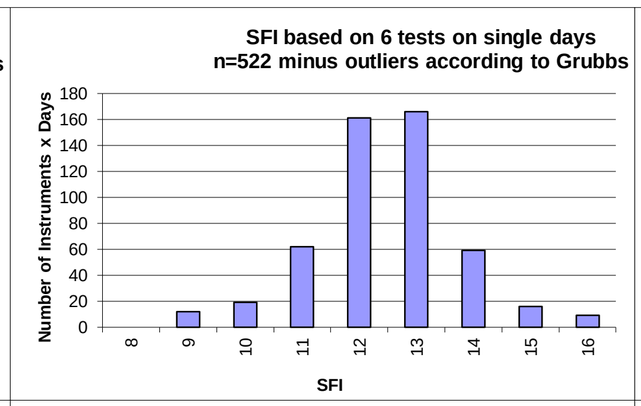
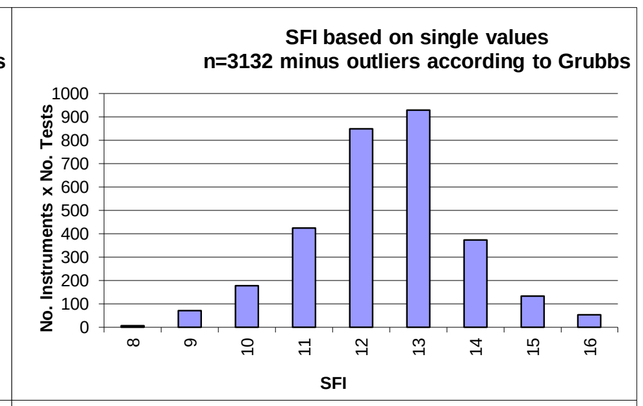
Test Result Distributions
SFI

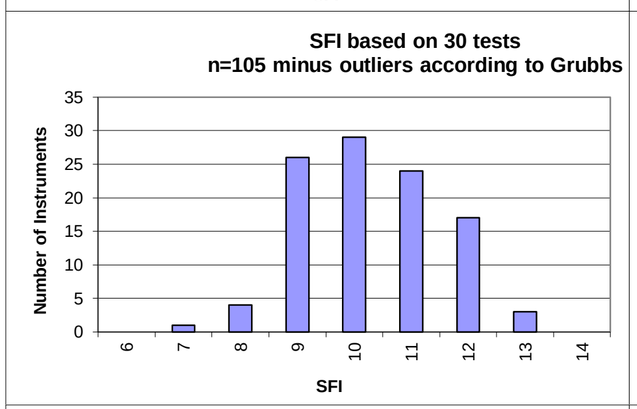
Cotton 1

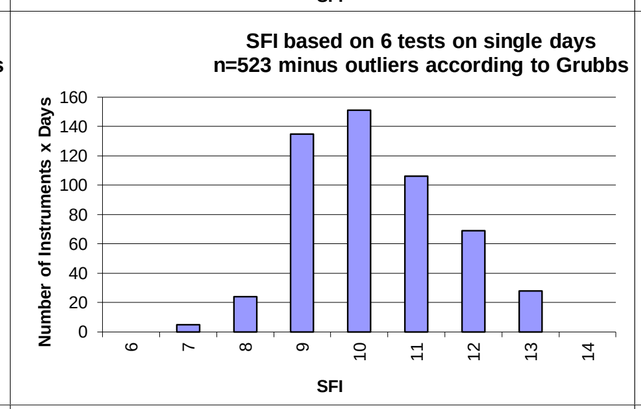


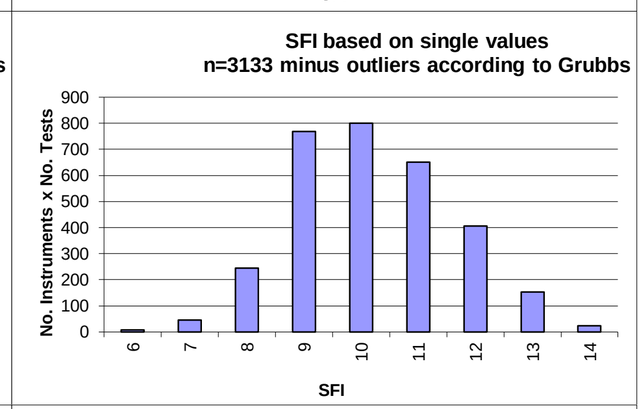




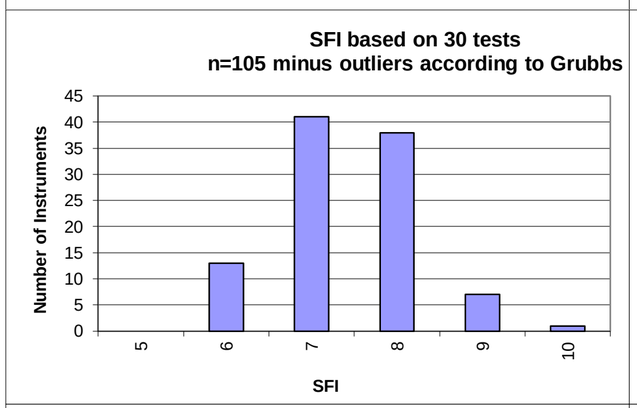
Cotton 2

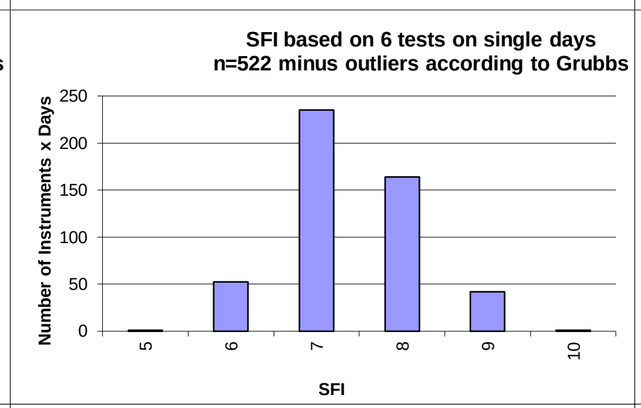


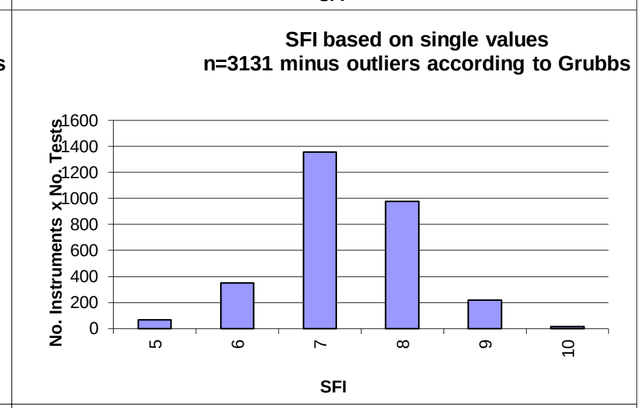




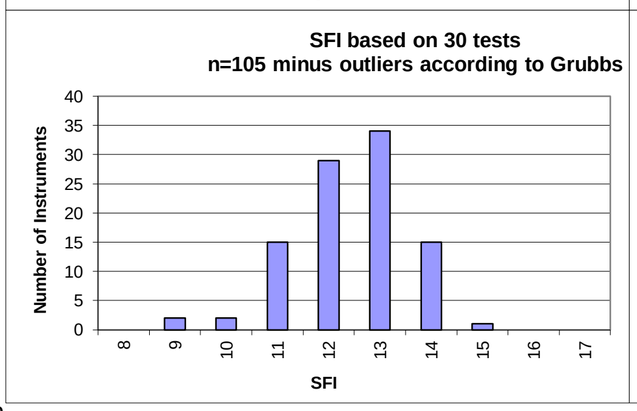
Cotton 3

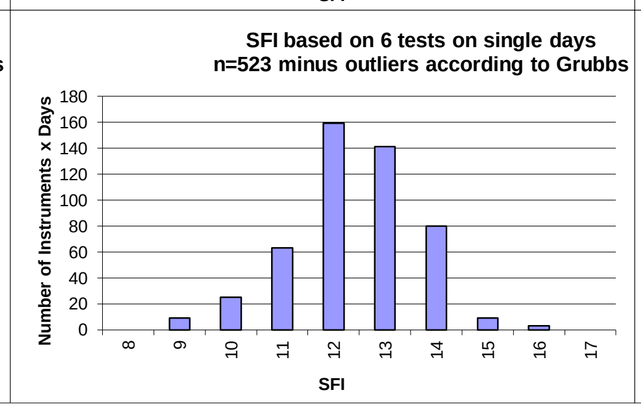


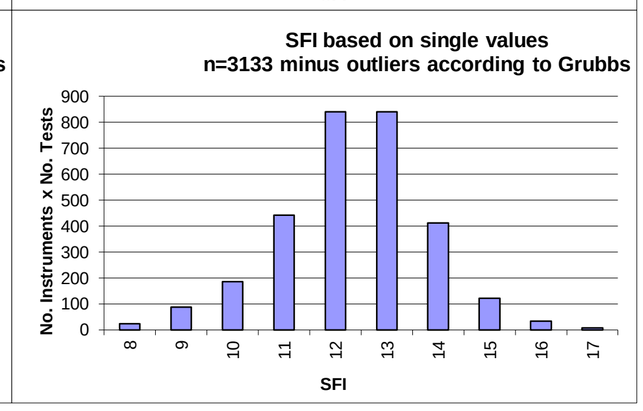




Cotton 4







0

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

International Cotton Advisory Committee

CSITC
Global - Round Trial 2014 - 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*

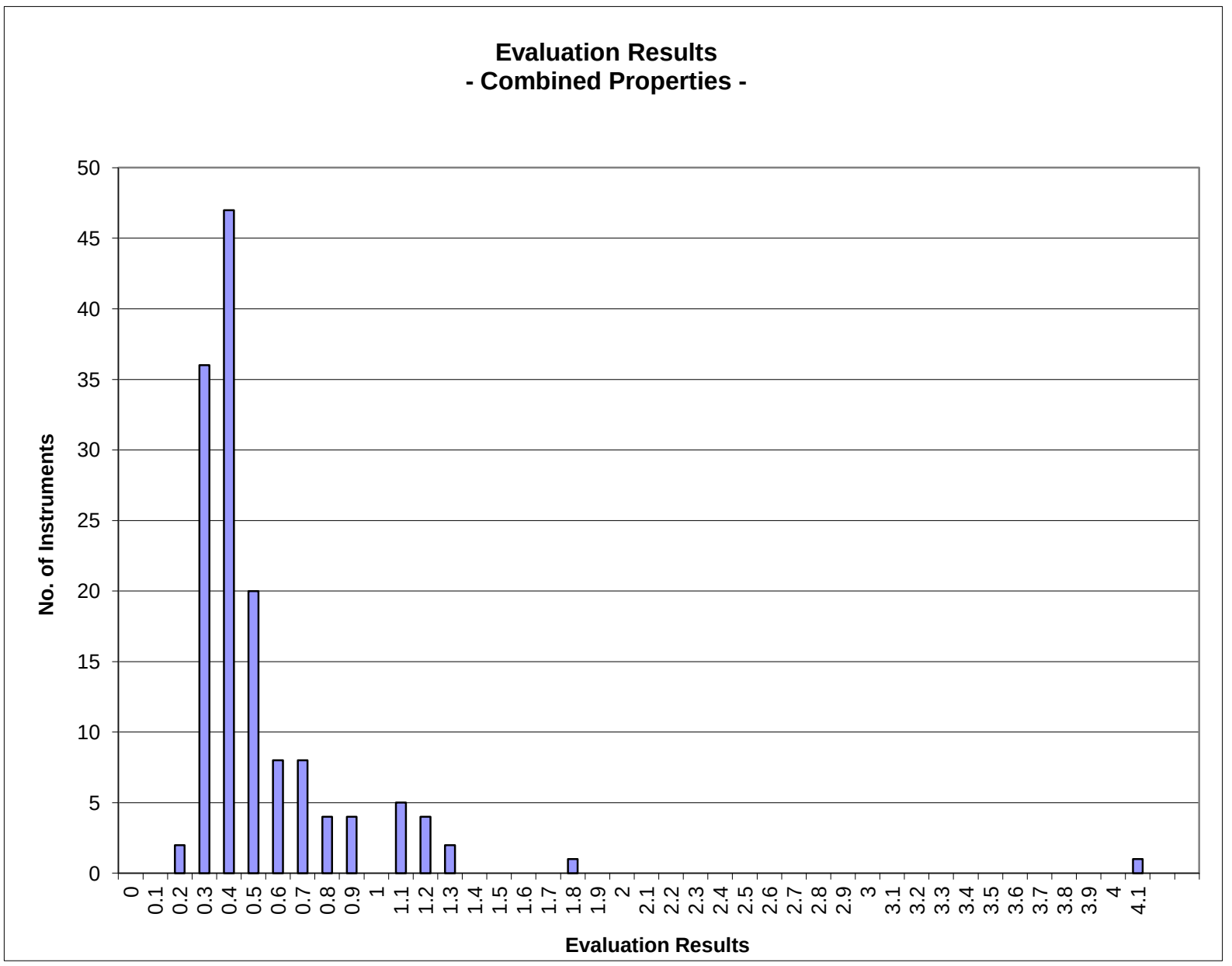
Instrument Evaluation

- Graph of Combined Properties -

According to ICAC CSITC Task Force Recommendations

Global - Round Trial 2014 - 4

		Evaluation Combined Prop.
Statistics	Average	0.54
	Median	0.41
	Best Instrument	0.22
	Worst Instrument	4.11



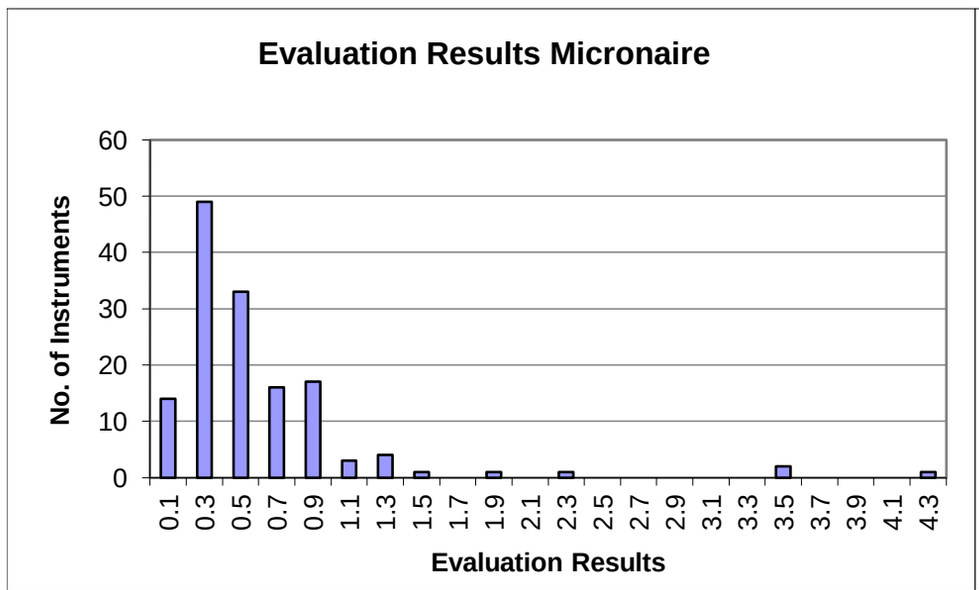
x-Axis shows midpoints of classes

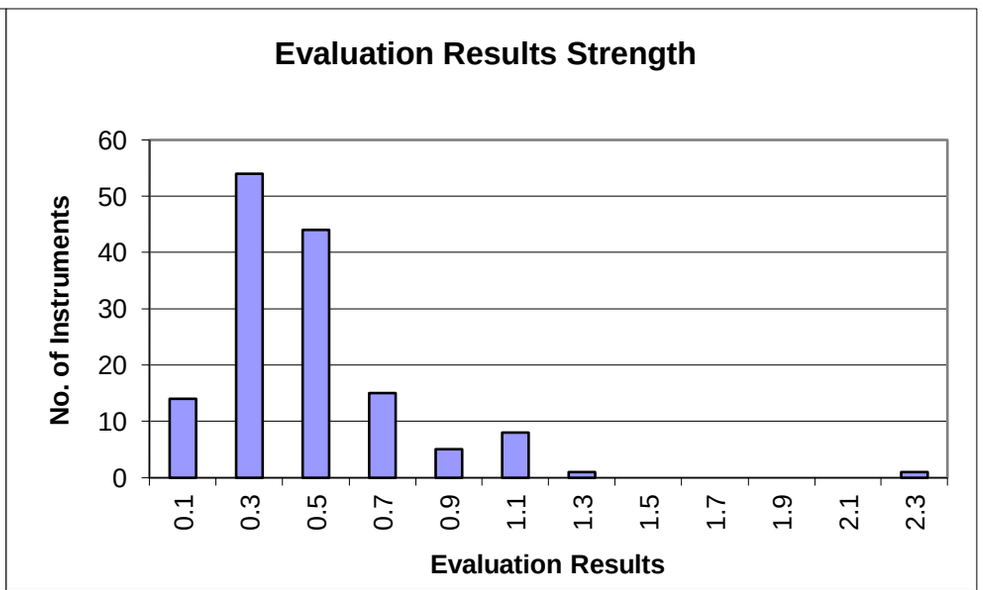
The evaluation results are entered based on the unrounded values

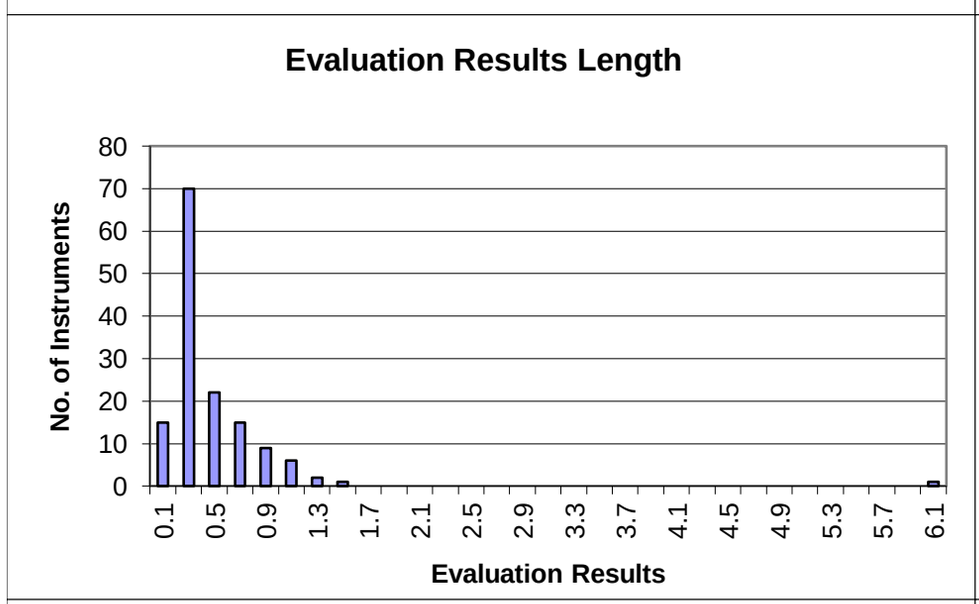
(classes are defined as > lower limit and <= upper limit)

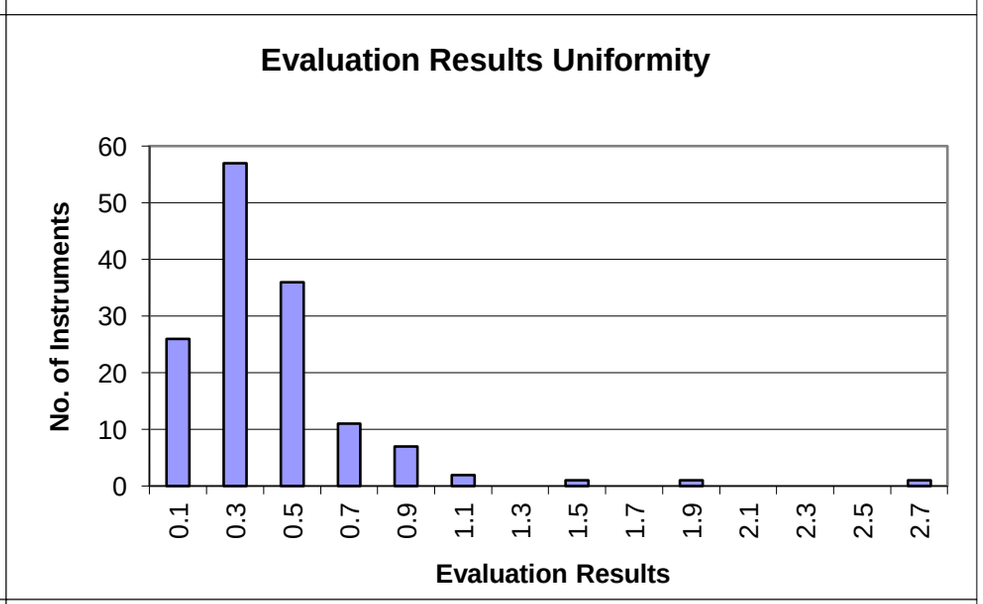
Instrument Evaluation
- Graph of Single Properties -
According to ICAC CSITC Task Force Recommendations
Global - Round Trial 2014 - 4

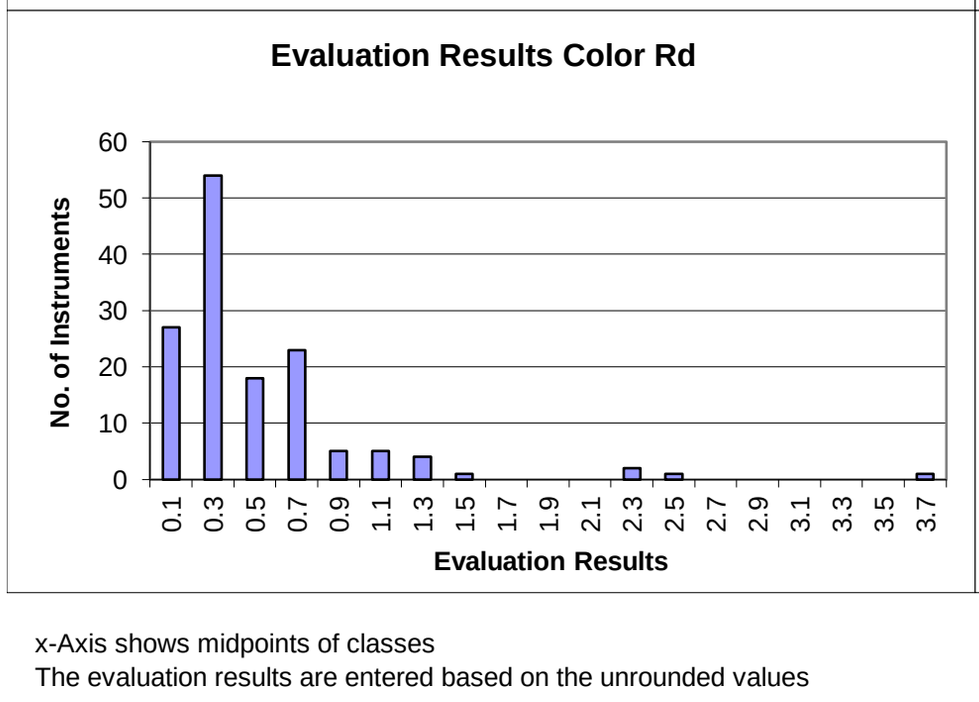
		Evaluation Micronaire	Evaluation Strength	Evaluation Length	Evaluation Uniformity	Evaluation Color Rd	Evaluation Color +b
Statistics	Average	0.60	0.47	0.49	0.43	0.50	0.73
	Median	0.45	0.41	0.36	0.36	0.31	0.46
	Best Instr.	0.10	0.11	0.09	0.06	0.04	0.05
	Worst Instr.	4.33	2.30	6.20	2.78	3.60	6.51

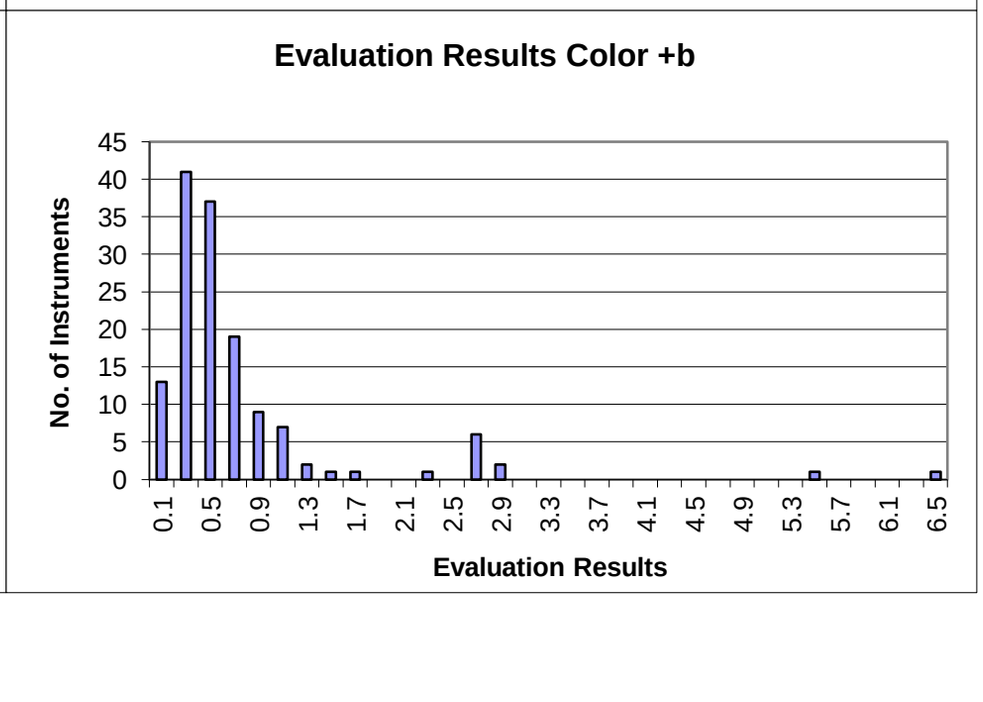












x-Axis shows midpoints of classes
The evaluation results are entered based on the unrounded values

International Cotton Advisory Committee

CSITC
Global - Round Trial 2014 - 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:
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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	1.0
	units	g/tex	inch	%	units	units
Average % Results within Limits	97.0	95.2	96.5	99.3	88.8	94.3
Completely within limits	95.8	85.9	88.7	97.9	79.4	87.9
% of Instruments ≥75% within limits	96.5	95.1	98.6	99.3	86.5	92.2
% of Instruments ≥50% within limits	97.9	100.0	98.6	100.0	92.2	98.6

Percentage of Results Within Limits						
Instrument	**Micronaire**	**Strength**	**Length**	**Uniformity**	**Color Rd**	**Color +b**
GL144-001-01	100	100	100	100	100	100
GL144-001-02	100	100	100	100	75	100
GL144-002-03	100	100	100	100	100	100
GL144-002-04	100	100	100	100	100	75
GL144-002-05	100	100	100	100	100	100
GL144-002-06	100	100	100	100	100	100
GL144-003-01	100	100	100	100	0	100
GL144-004-01	100	100	100	100	100	100
GL144-004-02	100	100	100	100	100	100
GL144-005-01	100	100	100	100	100	100
GL144-005-02	100	100	100	100	100	100
GL144-006-01	100	100	100	100	100	100
GL144-006-02	100	100	100	100	100	100
GL144-008-01	100	100	100	100	100	100
GL144-010-01	100	75	100	100	100	100
GL144-011-01	100	100	100	100	100	100
GL144-013-01	100	100	100	100	75	100
GL144-014-01	100	75	100	100	100	100
GL144-014-02	100	100	100	100	100	100
GL144-014-03	100	100	100	100	100	100
GL144-014-04	100	100	100	100	100	100
GL144-015-01	100	100	100	100	100	100
GL144-015-03	100	100	100	100	100	100
GL144-016-01	100	100	100	100	100	100
GL144-016-02	100	100	100	100	100	100
GL144-017-01	100	100	100	100	100	100
GL144-019-01	100	100	100	100	100	100
GL144-020-04	100	100	100	100	100	100
GL144-024-01	100	100	75	100	100	100
GL144-025-01	100	100	100	100	100	100
GL144-026-01	100	100	100	100	100	100
GL144-026-02	100	100	100	100	100	100
GL144-027-01	100	100	100	100	100	100
GL144-028-03	100	100	100	100	100	100
GL144-028-04	100	100	100	100	100	100
GL144-028-06	100	100	100	100	100	100
GL144-029-01	100	100	100	100	100	100
GL144-031-01	100	100	100	100	100	100
GL144-033-01	50	100		100	25	75

GL144-034-12	100	100	100	100	100	100
GL144-034-13	100	100	100	100	100	100
GL144-035-01	100	100	100	100	100	100
GL144-036-01	100	100	100	100	100	100
GL144-036-05	100	100	100	100	100	100
GL144-036-07	100	100	100	100	100	100
GL144-037-03	100	100	100	100	100	100
GL144-039-02	100	100	100	100	100	100
GL144-039-03	100	75	75	100	100	100
GL144-039-04	100	100	100	100	100	100
GL144-039-06	100	50	25	100	100	100
GL144-039-07	100	100	100	100	100	100
GL144-039-08	100	100	100	100	100	100
GL144-040-02	100	100	100	100	100	100
GL144-040-06	100	100	100	100	100	100
GL144-041-01	0	50	25	50	50	0
GL144-042-01	100	100	100	100	100	100
GL144-043-01	100	100	100	100	100	100
GL144-044-20	100	100	100	100	100	100
GL144-044-26	100	100	100	100	100	100
GL144-045-02	100	100	100	100	25	100
GL144-046-21	100	100	100	100	100	75
GL144-047-01	100	100	100	100	100	100
GL144-049-22	100	100	100	75	100	100
GL144-049-27	100	100	100	100	100	100
GL144-050-01	100	100	100	100	100	100
GL144-050-02	100	100	100	100	100	100
GL144-050-03	100	100	100	100	100	100
GL144-051-01	100	100	100	100	100	100
GL144-052-01	100	100	100	100	100	100
GL144-053-02	100	100	100	100	100	100
GL144-055-01	100	100	100	100	75	100
GL144-057-14	100	100	100	100	100	100
GL144-060-01	100	100	100	100	100	100
GL144-061-55	100	100	100	100	75	100
GL144-061-59	100	100	100	100	100	100
GL144-062-01	100	75	75	100	75	50
GL144-062-02	100	75	75	100	50	50
GL144-062-03	100	75	75	100	50	50
GL144-062-05	100	75	75	100	50	50
GL144-063-01	100	100	100	100	100	100
GL144-064-01	100	100	100	100	100	100
GL144-066-01	100	100	100	100	100	100
GL144-067-04	100	100	100	100	0	100
GL144-068-01	100	100	100	100	100	100
GL144-070-01	100	75	100	100	25	75
GL144-072-01	100	100	100	100	100	100
GL144-073-01	100	100	100	100	25	100
GL144-074-01	100	100	100	100	100	100
GL144-075-01	100	100	100	100	100	100
GL144-075-02	100	100	100	100	100	100
GL144-076-07	100	100	100	100	100	100
GL144-076-08	100	100	100	100	100	100
GL144-077-01	100	100	100	100	50	100
GL144-077-02	100	100	100	100	100	100
GL144-077-04	100	100	100	100	100	100
GL144-078-03	100	100	100	100	100	100
GL144-079-01	100	100	100	100	100	100
GL144-079-02	100	100	100	100	100	100
GL144-081-01	100	100	100	100	100	100

GL144-082-01	100	100	100	100	100	100
GL144-082-04	100	100	100	100	100	100
GL144-082-05	100	100	100	100	100	100
GL144-083-04	100	75	75	100	100	100
GL144-083-05	100	100	100	100	100	100
GL144-084-01	100	100	100	100	100	100
GL144-084-02	100	100	75	100	50	100
GL144-084-03	50	75	100	100	50	100
GL144-084-04	75	100	100	100	50	100
GL144-085-16	100	100	100	100	100	100
GL144-085-26	100	100	100	100	100	100
GL144-086-02	100	100	100	100	100	100
GL144-087-01	100	100	100	100	100	100
GL144-087-02	100	100	100	100	100	100
GL144-088-01	100	100	100	75	100	75
GL144-089-04	100	100	100	100	100	100
GL144-090-02	100	75	100	100	75	100
GL144-090-03	100	100	100	100	100	100
GL144-091-01	0	75	100	100	0	100
GL144-091-02	0	75	100	100	0	100
GL144-092-01	100	100	100	100	100	100
GL144-094-01	100	100	100	100	25	0
GL144-095-01	100	100	100	100	25	50
GL144-095-02	100	100	100	100	100	75
GL144-095-03	100	100	100	100	100	100
GL144-097-01	100	100	100	100	100	100
GL144-098-02	100	50	75	100	75	50
GL144-098-03	100	50	75	100	75	50
GL144-098-09	100	50	75	100	75	50
GL144-098-11	100	50	75	100	75	50
GL144-099-01	100	100	75	100		
GL144-100-01	100	100	75	100	100	100
GL144-100-11	100	100	100	100	100	100
GL144-101-01	100	100	100	100	100	100
GL144-102-01	100	100	100	100	100	100
GL144-104-01	100	50	100	100	25	100
GL144-105-02	100	100	100	100	100	100
GL144-105-03	100	100	100	100	100	100
GL144-105-04	100	100	100	100	100	100
GL144-105-05	100	100	100	100	100	100
GL144-106-01	100	100	100	100	100	100
GL144-106-02	100	100	100	100	100	100
GL144-107-01	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	1.0
	units	g/tex	inch	%	units	units
Average % Results within Limits	95.5	91.7	94.1	97.2	87.8	93.1
% of Instruments 100% within limits	57.0	26.8	28.4	53.5	46.8	66.7
% of Instruments ≥95% within limits	84.5	59.2	67.4	84.5	67.4	78.0
% of Instruments ≥75% within limits	95.8	87.3	94.3	97.9	79.4	90.1
% of Instruments ≥65% within limits	96.5	94.4	97.9	98.6	87.2	92.2
% of Instruments ≥50% within limits	97.2	100.0	99.3	99.3	90.1	97.9

Percentage of Results Within Limits						
Instrument	**Micronaire**	**Strength**	**Length**	**Uniformity**	**Color Rd**	**Color +b**
GL144-001-01	100	87	100	94	68	98
GL144-001-02	100	86	100	98	73	100
GL144-002-03	100	100	98	100	99	100
GL144-002-04	100	98	95	100	73	76
GL144-002-05	100	100	100	100	100	100
GL144-002-06	100	100	100	100	100	100
GL144-003-01	100	99	100	100	3	100
GL144-004-01	97	100	100	100	100	100
GL144-004-02	98	100	100	100	100	100
GL144-005-01	100	100	100	100	100	100
GL144-005-02	100	97	100	100	100	100
GL144-006-01	100	95	100	100	100	100
GL144-006-02	100	96	98	99	100	100
GL144-008-01	100	93	93	97	100	100
GL144-010-01	99	74	99	100	100	100
GL144-011-01	94	93	100	98	95	100
GL144-013-01	98	91	99	100	85	99
GL144-014-01	100	74	100	100	100	100
GL144-014-02	100	100	99	100	100	100
GL144-014-03	87	88	99	98	98	100
GL144-014-04	90	82	98	98	97	98
GL144-015-01	99	100	93	99	100	100
GL144-015-03	99	100	94	88	98	100
GL144-016-01	100	93	100	100	100	99
GL144-016-02	100	97	100	100	98	100
GL144-017-01	100	100	100	100	100	100
GL144-019-01	100	100	99	100	100	100
GL144-020-04	100	100	80	96	100	100
GL144-024-01	81	91	94	94	93	95
GL144-025-01	100	96	98	100	100	100
GL144-026-01	100	100	90	93	99	93
GL144-026-02	100	100	98	92	100	100
GL144-027-01	100	99	99	98	99	100
GL144-028-03	97	98	100	100	100	100
GL144-028-04	98	99	100	100	100	100
GL144-028-06	98	100	100	100	100	100

GL144-029-01	99	95	100	100	95	99
GL144-031-01	97	95	88	99	100	98
GL144-033-01	40	98		94	46	69
GL144-034-12	89	94	99	100	100	100
GL144-034-13	100	91	99	97	100	100
GL144-035-01	100	100	100	100	100	100
GL144-036-01	100	100	98	100	99	100
GL144-036-05	100	100	94	100	100	100
GL144-036-07	100	100	99	100	99	100
GL144-037-03	100	91	100	100	100	100
GL144-039-02	100	97	95	100	89	98
GL144-039-03	92	73	68	81	73	84
GL144-039-04	100	73	96	99	60	100
GL144-039-06	100	52	56	98	84	100
GL144-039-07	100	88	97	100	97	100
GL144-039-08	97	93	93	99	100	100
GL144-040-02	98	95	96	99	93	93
GL144-040-06	89	98	99	100	97	92
GL144-041-01	6	50	24	43	46	0
GL144-042-01	100	100	91	100	99	93
GL144-043-01	100	97	90	99	100	100
GL144-044-20	100	100	100	100	100	100
GL144-044-26	100	100	100	100	100	100
GL144-045-02	94	97	89	100	26	100
GL144-046-21	98	100	90	100	73	82
GL144-047-01	100	100	100	100	97	97
GL144-049-22	100	94	89	73	100	100
GL144-049-27	100	98	98	97	100	100
GL144-050-01	89	86	96	99	99	99
GL144-050-02	94	89	99	98	100	100
GL144-050-03	99	90	99	100	94	100
GL144-051-01	100	100	100	100	99	100
GL144-052-01	100	100	88	100	99	100
GL144-053-02	100	99	94	100	95	100
GL144-055-01	100	92	97	98	59	98
GL144-057-14	99	98	99	100	100	100
GL144-060-01	100	98	100	100	98	98
GL144-061-55	100	96	98	100	79	100
GL144-061-59	98	98	100	100	100	100
GL144-062-01	98	71	74	97	72	50
GL144-062-02	98	71	63	93	70	50
GL144-062-03	100	72	71	89	71	50
GL144-062-05	98	72	70	93	71	50
GL144-063-01	100	100	99	100	100	100
GL144-064-01	98	100	95	85	99	100
GL144-066-01	81	98	99	100	100	100
GL144-067-04	100	100	100	100	0	100
GL144-068-01	98	98	88	100	99	92
GL144-070-01	100	76	100	99	43	75
GL144-072-01	100	83	97	100	100	100
GL144-073-01	83	73	85	90	43	94
GL144-074-01	99	98	99	98	68	87
GL144-075-01	100	97	96	100	100	100
GL144-075-02	99	85	100	98	100	100
GL144-076-07	99	96	99	100	97	100
GL144-076-08	100	98	97	100	100	100
GL144-077-01	100	93	98	100	62	100
GL144-077-02	94	98	100	100	100	100
GL144-077-04	100	99	97	98	100	100
GL144-078-03	100	98	98	99	100	100

GL144-079-01	100	93	94	99	97	100
GL144-079-02	98	93	98	98	90	97
GL144-081-01	100	98	99	100	98	100
GL144-082-01	99	98	100	100	100	100
GL144-082-04	100	99	99	100	100	100
GL144-082-05	100	100	99	100	100	100
GL144-083-04	99	72	85	88	90	90
GL144-083-05	98	91	90	100	100	100
GL144-084-01	100	98	96	100	100	100
GL144-084-02	100	95	88	100	40	100
GL144-084-03	58	77	98	100	48	92
GL144-084-04	98	100	97	100	63	100
GL144-085-16	100	98	98	97	100	100
GL144-085-26	99	87	100	99	100	100
GL144-086-02	100	89	88	93	100	100
GL144-087-01	100	100	100	100	87	100
GL144-087-02	100	99	100	100	100	100
GL144-088-01	100	93	80	59	98	72
GL144-089-04	100	84	93	99	100	100
GL144-090-02	100	62	98	100	68	100
GL144-090-03	100	98	100	100	100	100
GL144-091-01	8	88	92	98	5	93
GL144-091-02	8	88	92	98	5	93
GL144-092-01	100	100	98	93	100	100
GL144-094-01	71	92	91	85	43	0
GL144-095-01	98	98	93	91	46	40
GL144-095-02	100	98	79	85	83	68
GL144-095-03	99	99	96	99	91	90
GL144-097-01	100	92	100	99	100	100
GL144-098-02	99	58	77	100	81	50
GL144-098-03	99	59	74	100	79	50
GL144-098-09	99	58	78	100	83	50
GL144-098-11	99	60	78	100	83	50
GL144-099-01	92	100	87	89		
GL144-100-01	87	89	95	95	96	94
GL144-100-11	100	87	100	100	100	100
GL144-101-01	100	94	98	98	100	100
GL144-102-01	100	93	100	100	99	100
GL144-104-01	99	50	88	99	48	100
GL144-105-02	100	100	100	98	100	100
GL144-105-03	99	100	98	98	100	100
GL144-105-04	100	99	93	100	100	100
GL144-105-05	93	97	99	99	100	99
GL144-106-01	100	100	93	95	100	100
GL144-106-02	100	100	99	97	99	99
GL144-107-01	100	93	97	99	92	97