International Cotton Advisory Committee

CSITC
Global - Round Trial 2013 - 2
General Evaluation

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

Section One: Result Distribution

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- -Summary Table
- -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
and the European Union, partners in Commodity Development.

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

Global - Round Trial 2013 - 2

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

Micronaire							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			4.983	3.296	5.225	2.506	
Reference Values for Evaluation			4.983	3.296	5.225	2.506	
Number Of Instruments			129	129	129	126	**128**
Inter-Instrument Variation	based on 30 tests	SD	0.056	0.068	0.060	0.056	**0.060**
		CV %	1.1	2.1	1.1	2.2	**1.6**
	based on 6 tests	SD	0.062	0.071	0.063	0.059	**0.064**
		CV %	1.3	2.1	1.2	2.3	**1.7**
	based on single tests	SD	0.076	0.078	0.077	0.069	**0.075**
		CV %	1.5	2.4	1.5	2.8	**2.0**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.026	0.022	0.028	0.020	**0.024**
		CV %	0.5	0.7	0.5	0.8	**0.6**
	between single tests on one day	SD	0.038	0.029	0.038	0.026	**0.033**
		CV %	0.8	0.9	0.7	1.0	**0.9**
	between all tests on different days	SD	0.048	0.039	0.048	0.035	**0.043**
		CV %	1.0	1.2	0.9	1.4	**1.1**

Strength							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			27.122	29.205	26.965	23.368	
Reference Values for Evaluation			27.122	29.205	26.965	23.368	
Number Of Instruments			129	129	129	126	**128**
Inter-Instrument Variation	based on 30 tests	SD	0.905	0.879	0.958	0.943	**0.921**
		CV %	3.3	3.0	3.6	4.0	**3.5**
	based on 6 tests	SD	1.086	0.963	1.064	1.003	**1.029**
		CV %	4.0	3.3	3.9	4.3	**3.9**
	based on single tests	SD	1.208	1.101	1.170	1.130	**1.152**
		CV %	4.5	3.8	4.3	4.8	**4.4**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.329	0.366	0.332	0.348	**0.344**
		CV %	1.2	1.3	1.2	1.5	**1.3**
	between single tests on one day	SD	0.530	0.558	0.568	0.486	**0.536**
		CV %	2.0	1.9	2.1	2.1	**2.0**
	between all tests on different days	SD	0.631	0.670	0.653	0.583	**0.634**
		CV %	2.3	2.3	2.4	2.5	**2.4**

Length							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			1.0317	1.1216	1.0087	1.0341	
Reference Values for Evaluation			1.0317	1.1216	1.0087	1.0341	
Number Of Instruments			129	129	129	126	**128**
Inter-Instrument Variation	based on 30 tests	SD	0.0105	0.0101	0.0101	0.0121	**0.0107**
		CV %	1.0	0.9	1.0	1.2	**1.0**
	based on 6 tests	SD	0.0125	0.0111	0.0129	0.0137	**0.0125**
		CV %	1.2	1.0	1.3	1.3	**1.2**
	based on single tests	SD	0.0163	0.0148	0.0170	0.0166	**0.0162**
		CV %	1.6	1.3	1.7	1.6	**1.5**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.0057	0.0054	0.0054	0.0053	**0.0055**
		CV %	0.6	0.5	0.5	0.5	**0.5**
	between single tests on one day	SD	0.0097	0.0090	0.0100	0.0095	**0.0096**
		CV %	0.9	0.8	1.0	0.9	**0.9**
	between all tests on different days	SD	0.0111	0.0103	0.0113	0.0108	**0.0109**
		CV %	1.1	0.9	1.1	1.0	**1.0**

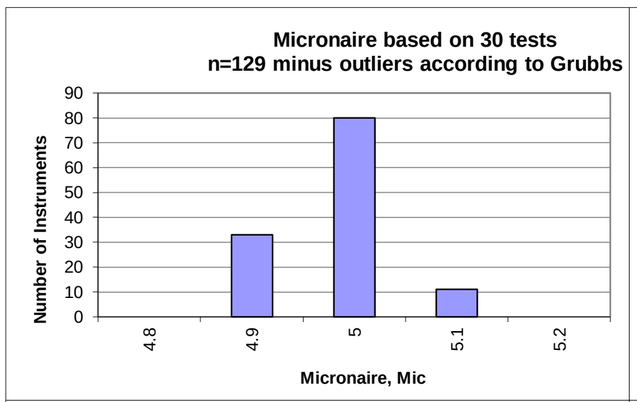
Uniformity							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			79.167	81.310	79.555	78.994	
Reference Values for Evaluation			79.167	81.310	79.555	78.994	
Number Of Instruments			129	129	129	126	**128**
Inter-Instrument Variation	based on 30 tests	SD	0.484	0.517	0.556	0.614	**0.543**
		CV %	0.6	0.6	0.7	0.8	**0.7**
	based on 6 tests	SD	0.599	0.554	0.697	0.702	**0.638**
		CV %	0.8	0.7	0.9	0.9	**0.8**
	based on single tests	SD	0.842	0.763	0.874	0.865	**0.836**
		CV %	1.1	0.9	1.1	1.1	**1.0**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.276	0.281	0.297	0.317	**0.293**
		CV %	0.3	0.3	0.4	0.4	**0.4**
	between single tests on one day	SD	0.548	0.481	0.554	0.533	**0.529**
		CV %	0.7	0.6	0.7	0.7	**0.7**
	between all tests on different days	SD	0.590	0.537	0.579	0.613	**0.580**
		CV %	0.7	0.7	0.7	0.8	**0.7**

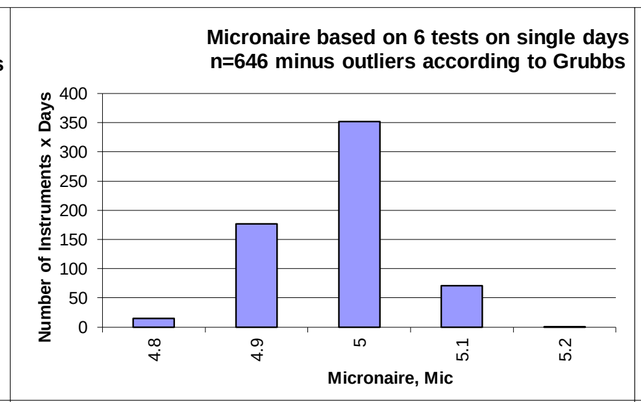
Color Rd							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			78.141	70.754	79.640	73.432	
Reference Values for Evaluation			78.141	70.754	79.640	73.432	
Number Of Instruments			126	126	126	123	**125**
Inter-Instrument Variation	based on 30 tests	SD	0.628	1.034	0.951	1.073	**0.922**
		CV %	0.8	1.5	1.2	1.5	**1.2**
	based on 6 tests	SD	0.697	1.068	1.020	1.102	**0.972**
		CV %	0.9	1.5	1.3	1.5	**1.3**
	based on single tests	SD	0.748	1.097	1.044	1.123	**1.003**
		CV %	1.0	1.6	1.3	1.5	**1.3**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.254	0.222	0.226	0.208	**0.227**
		CV %	0.3	0.3	0.3	0.3	**0.3**
	between single tests on one day	SD	0.240	0.208	0.219	0.206	**0.218**
		CV %	0.3	0.3	0.3	0.3	**0.3**
	between all tests on different days	SD	0.342	0.313	0.329	0.299	**0.321**
		CV %	0.4	0.4	0.4	0.4	**0.4**

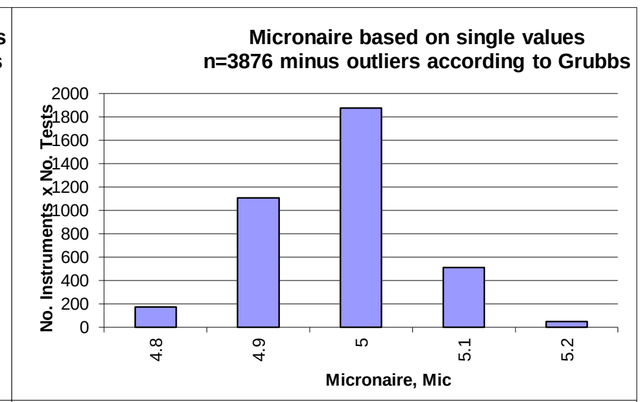
Color +b							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			7.762	14.498	8.832	15.410	
Reference Values for Evaluation			7.762	14.498	8.832	15.410	
Number Of Instruments			126	126	126	123	**125**
Inter-Instrument Variation	based on 30 tests	SD	0.242	0.332	0.260	0.372	**0.301**
		CV %	3.1	2.3	2.9	2.4	**2.7**
	based on 6 tests	SD	0.263	0.358	0.281	0.409	**0.328**
		CV %	3.4	2.5	3.2	2.7	**2.9**
	based on single tests	SD	0.297	0.386	0.315	0.438	**0.359**
		CV %	3.8	2.7	3.6	2.8	**3.2**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.114	0.133	0.123	0.129	**0.125**
		CV %	1.5	0.9	1.4	0.8	**1.2**
	between single tests on one day	SD	0.096	0.113	0.102	0.124	**0.109**
		CV %	1.2	0.8	1.2	0.8	**1.0**
	between all tests on different days	SD	0.155	0.181	0.155	0.176	**0.167**
		CV %	2.0	1.2	1.8	1.1	**1.5**

Test Result Distributions
Micronaire

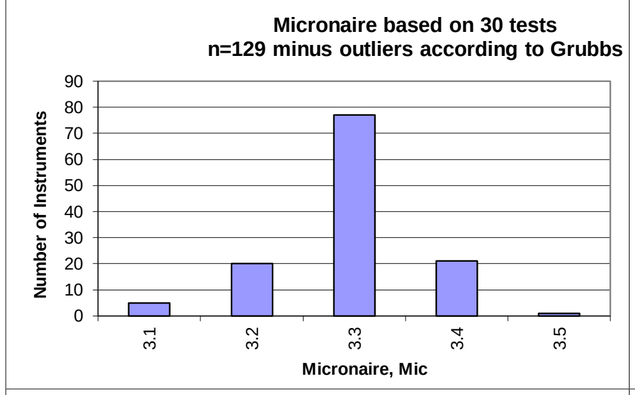
Cotton 1

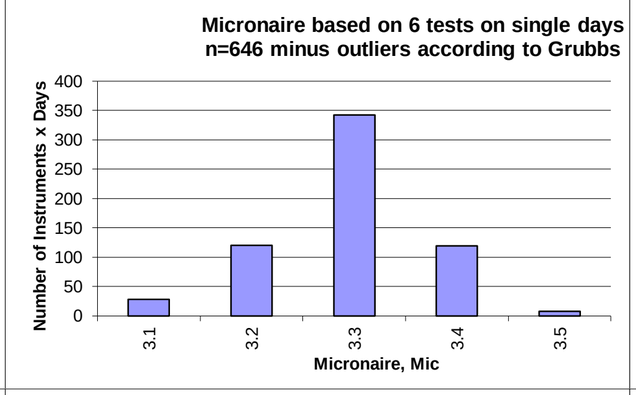


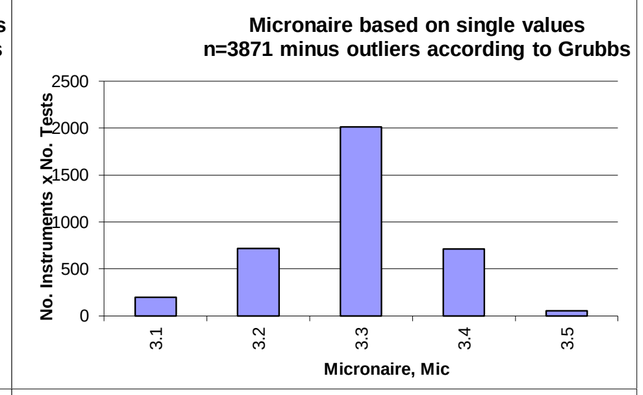




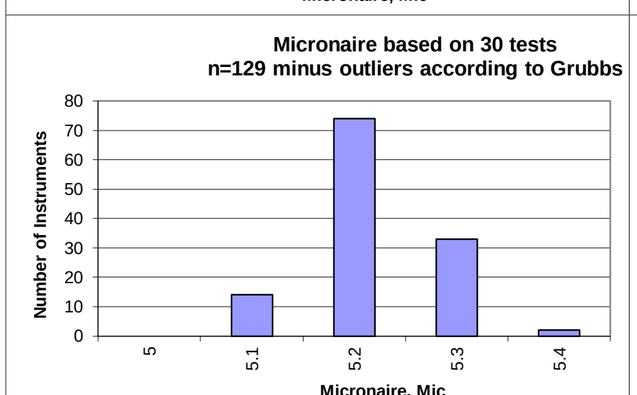
Cotton 2

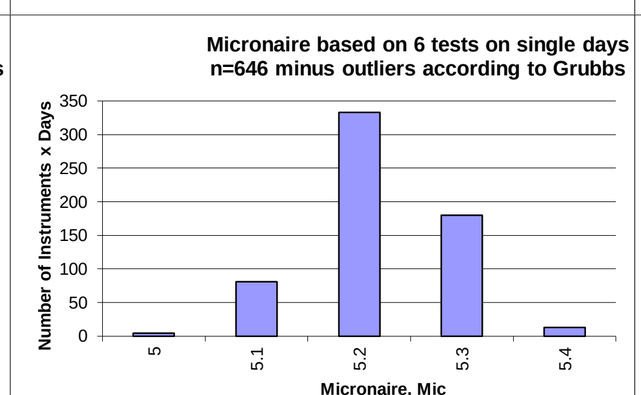


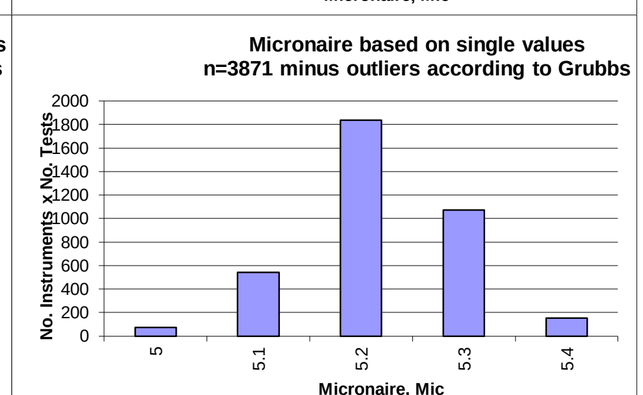




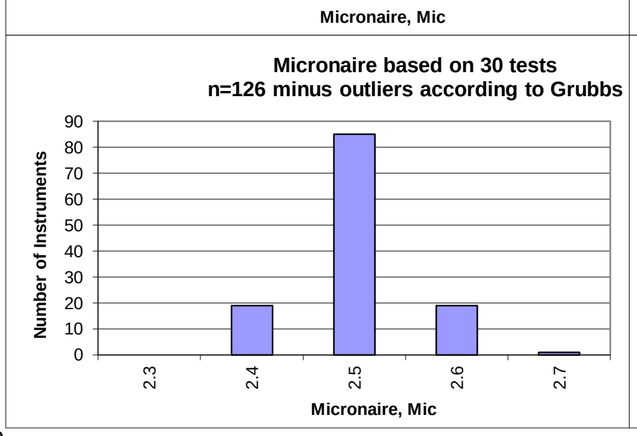
Cotton 3

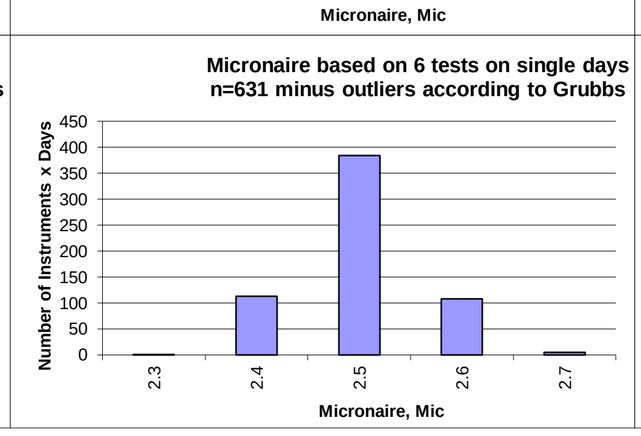


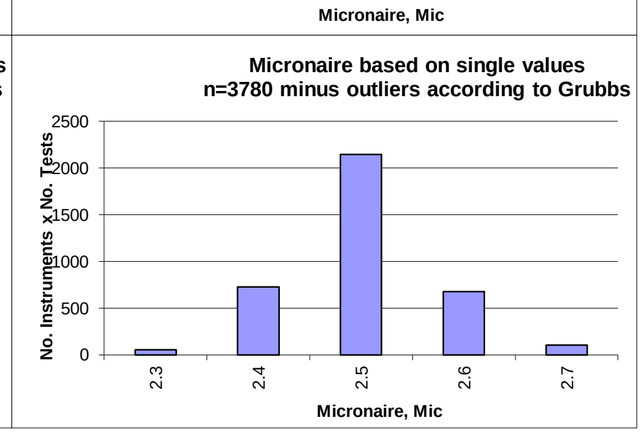




Cotton 4







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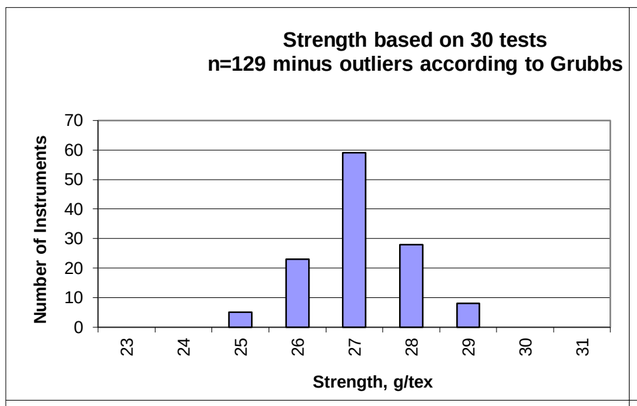
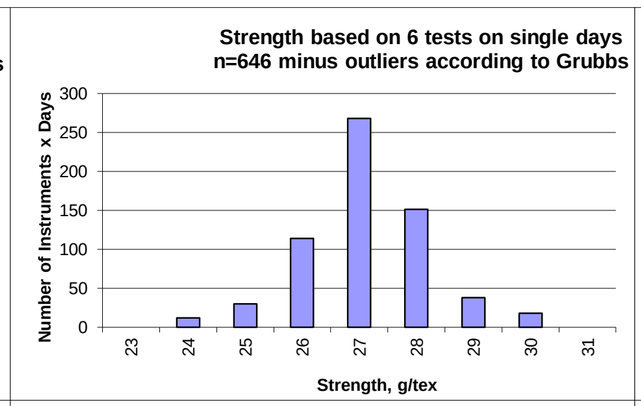
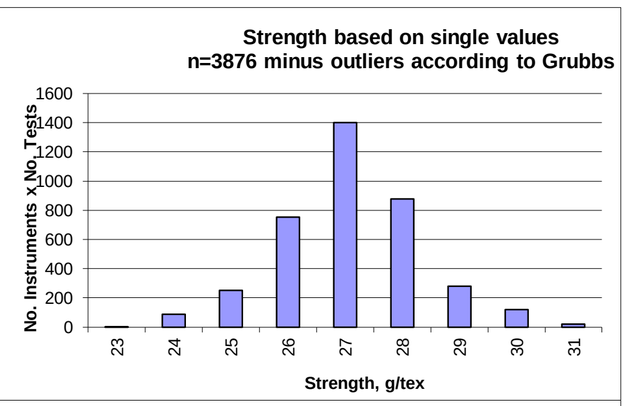
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method.)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Strength

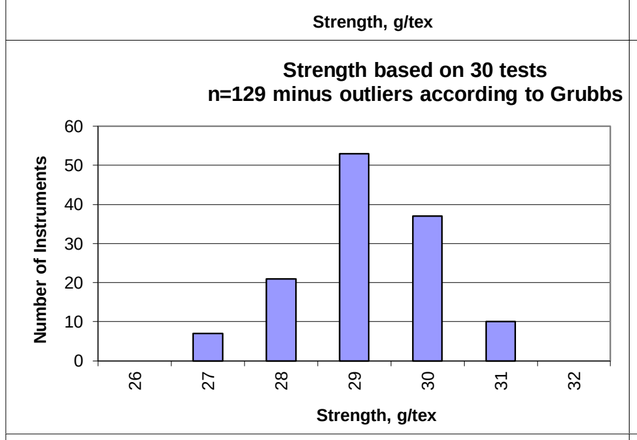
Cotton 1

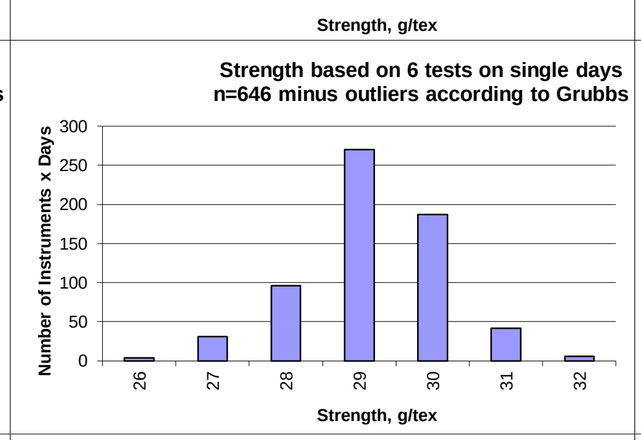


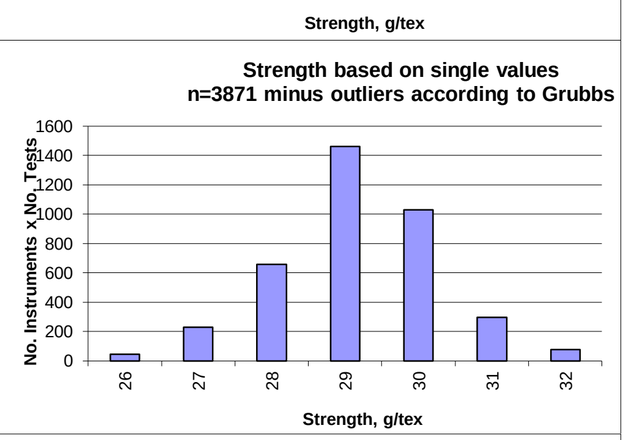




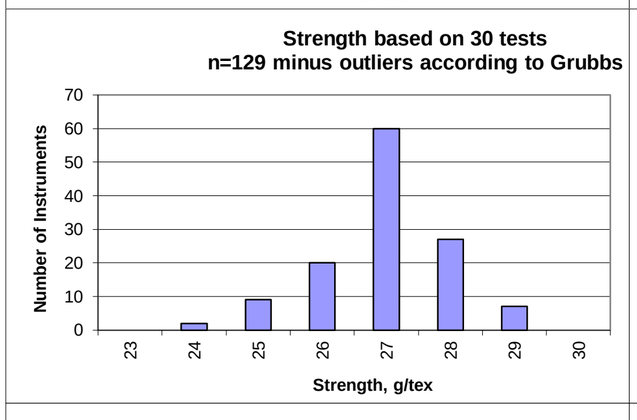
Cotton 2

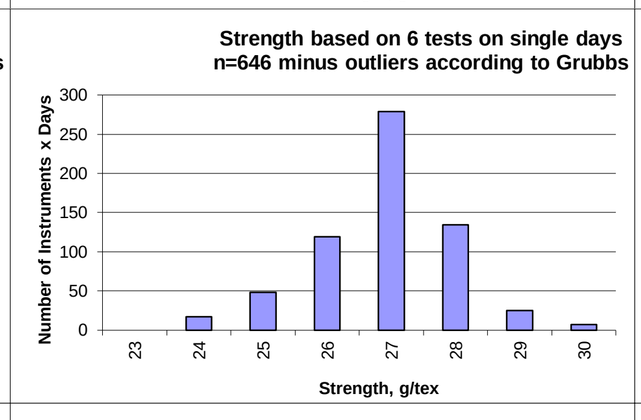


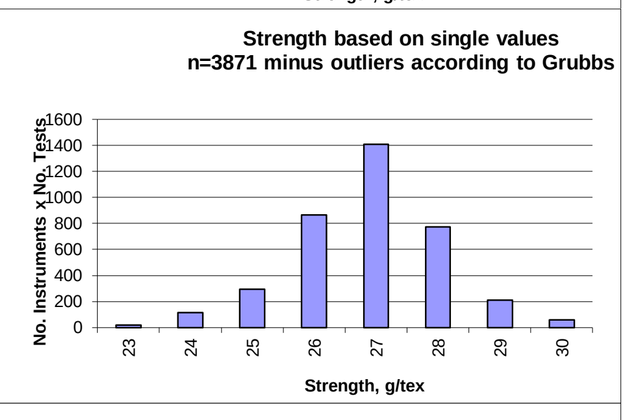




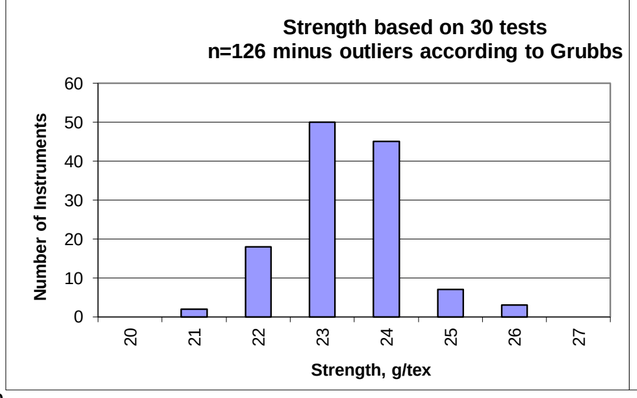
Cotton 3

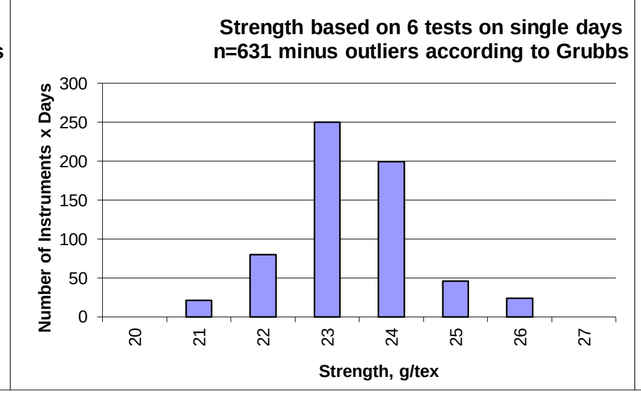


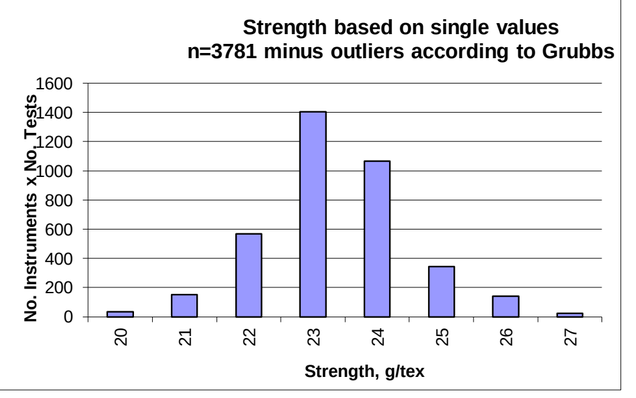




Cotton 4







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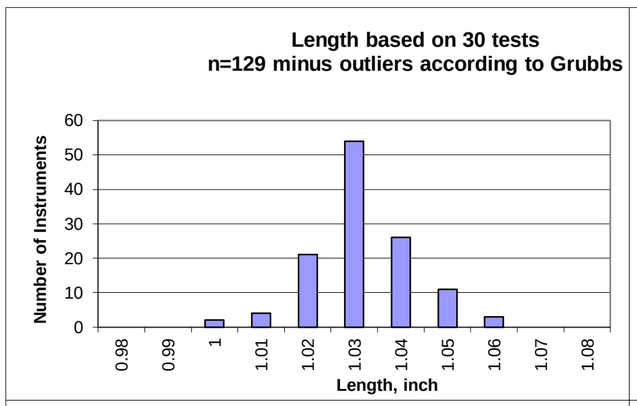
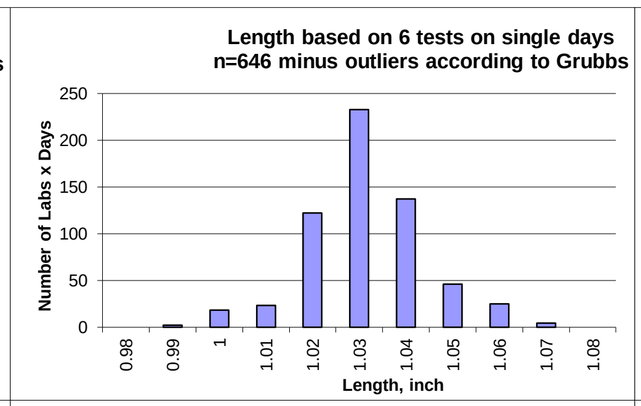
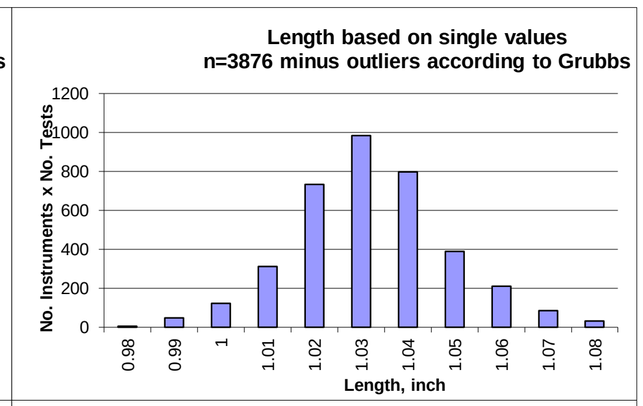
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Length

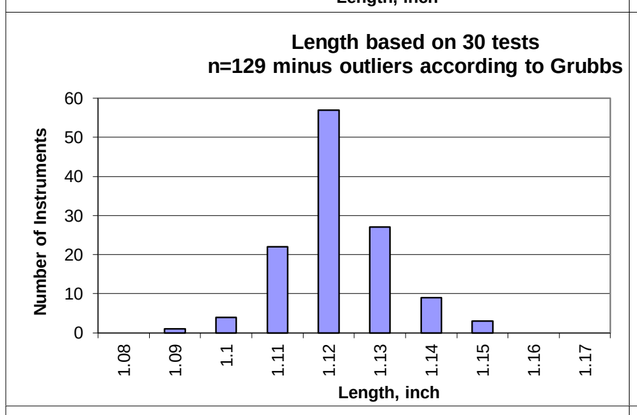
Cotton 1

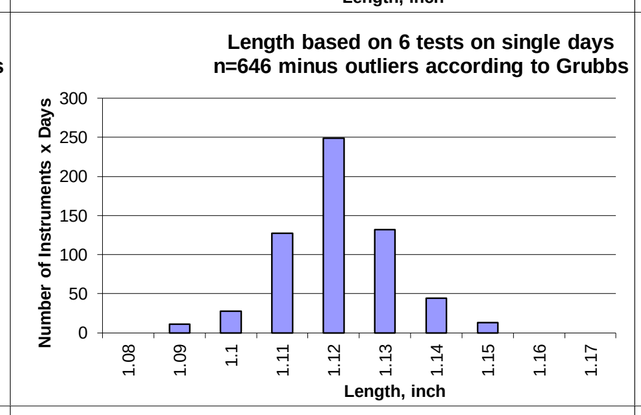


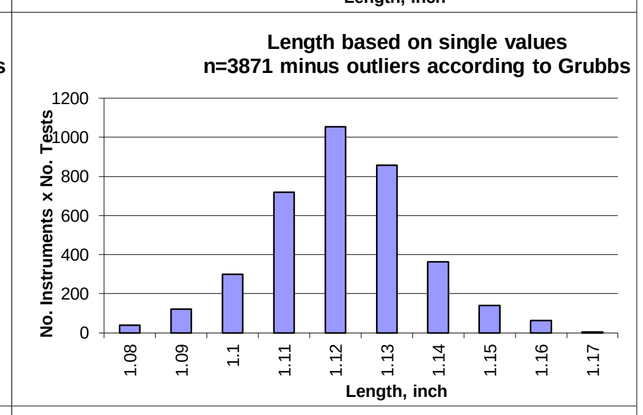




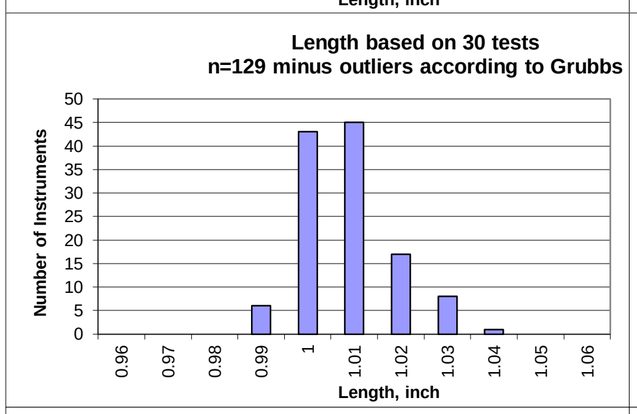
Cotton 2

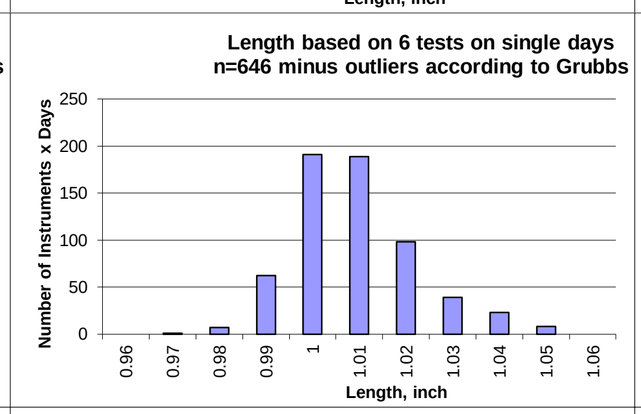


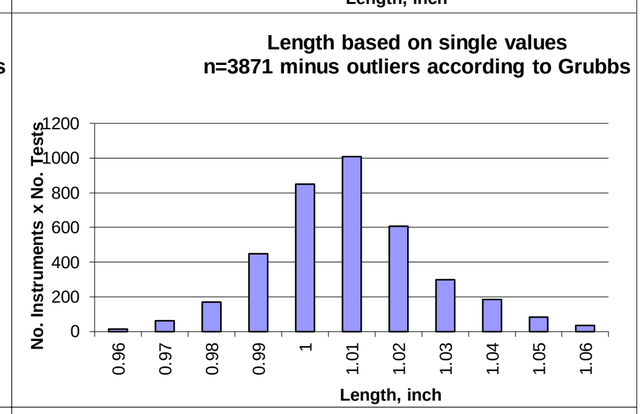




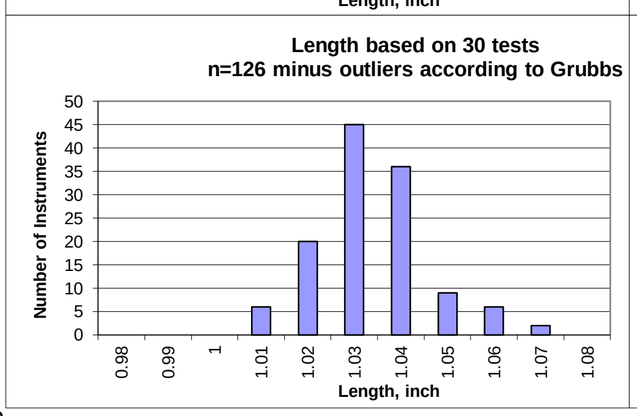
Cotton 3

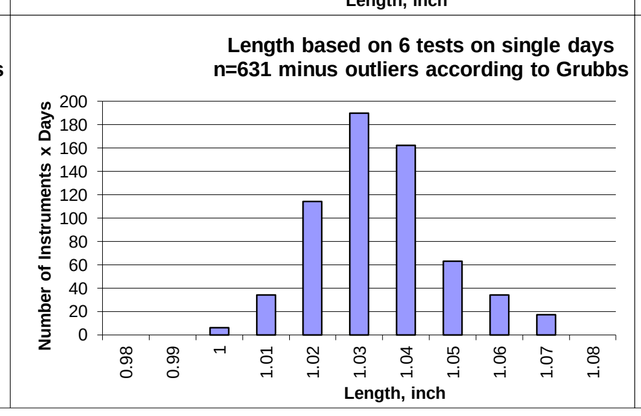


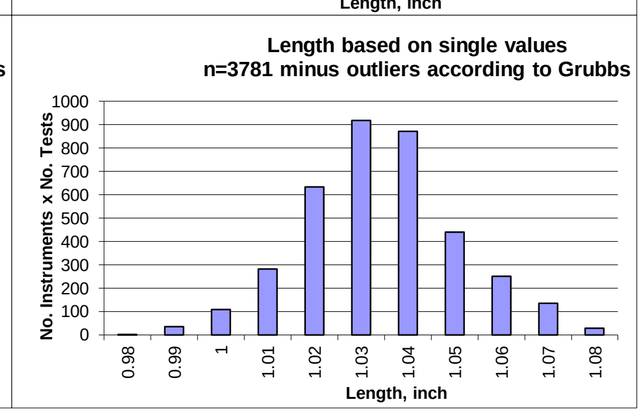




Cotton 4







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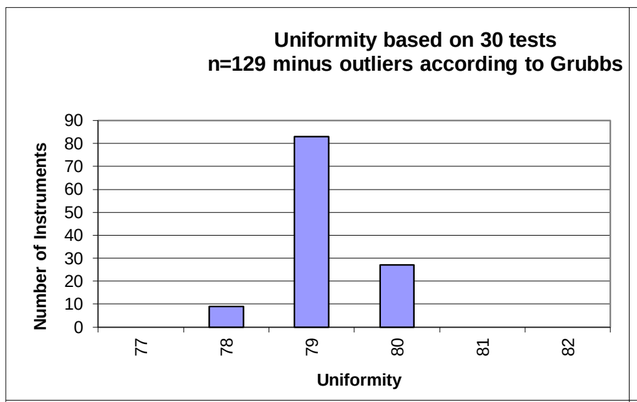
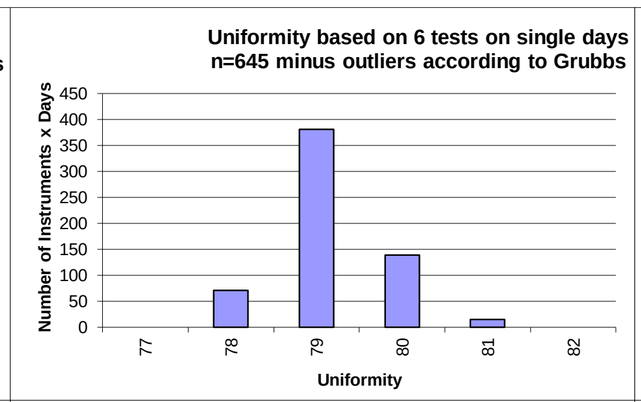
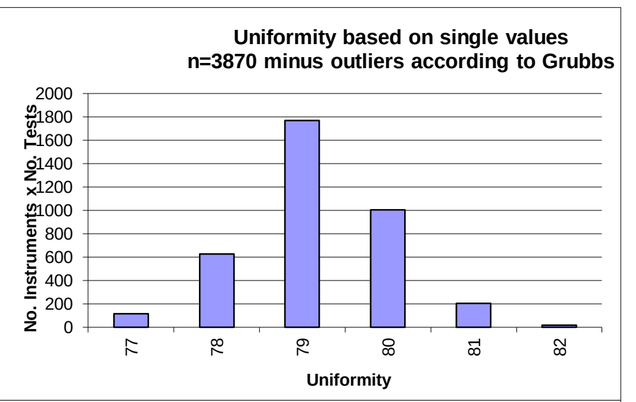
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Uniformity

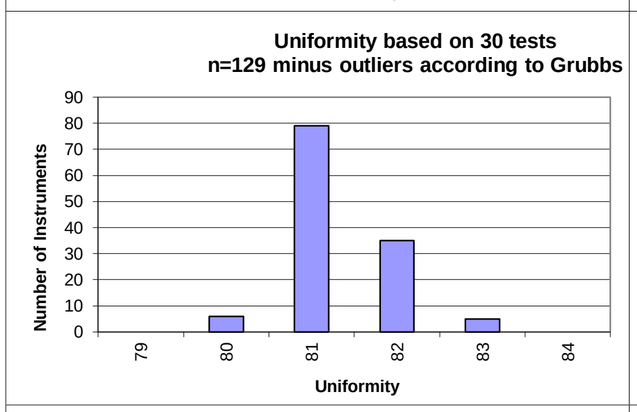
Cotton 1

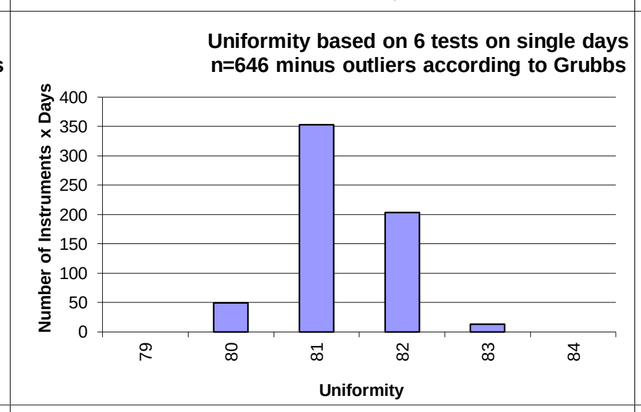


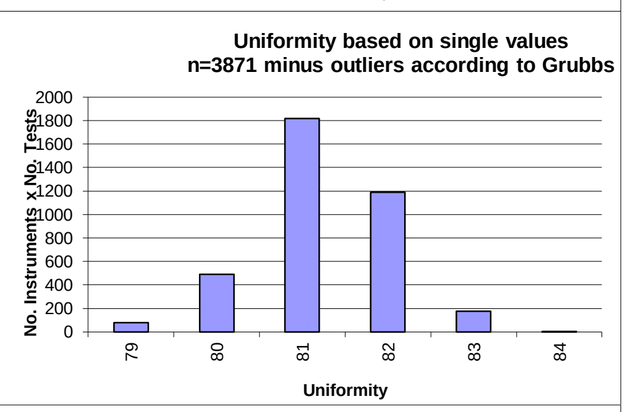




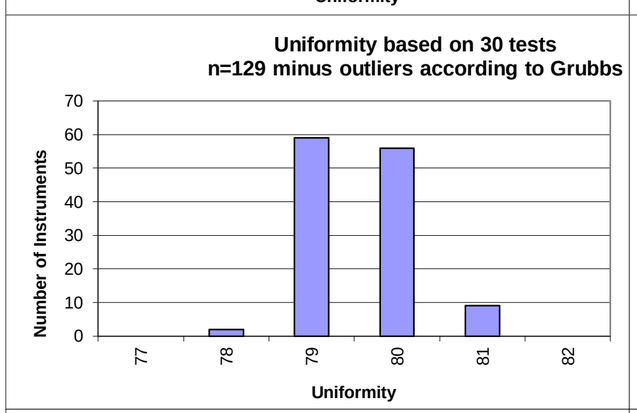
Cotton 2

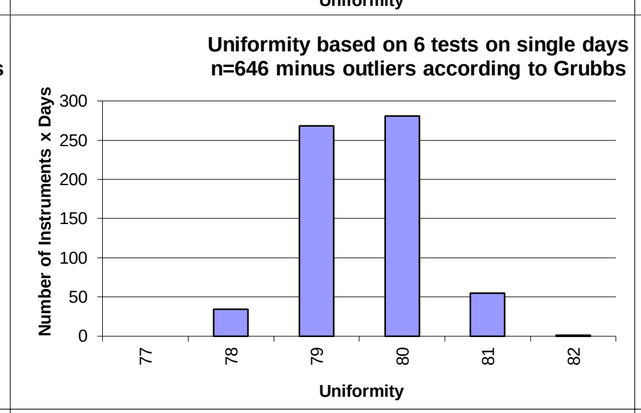


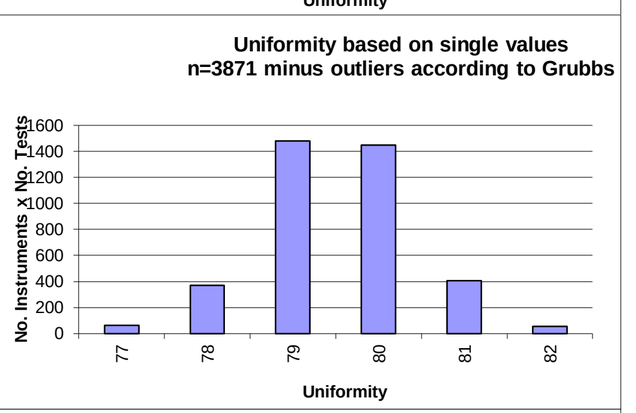




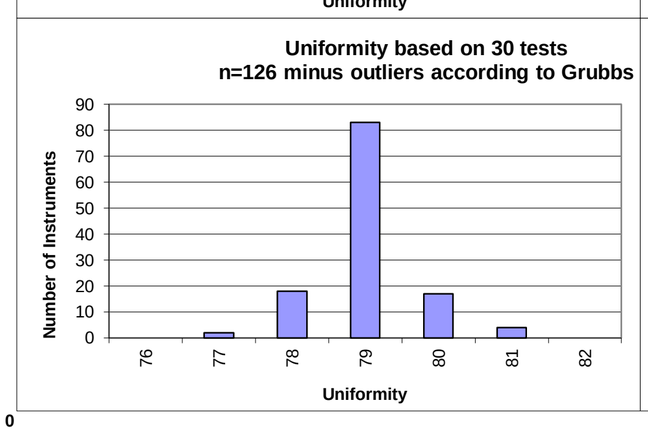
Cotton 3

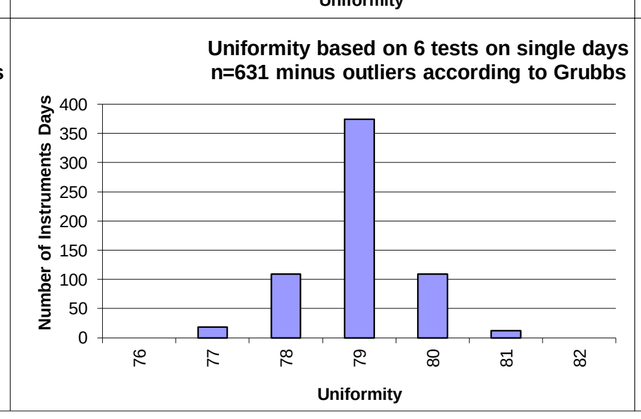


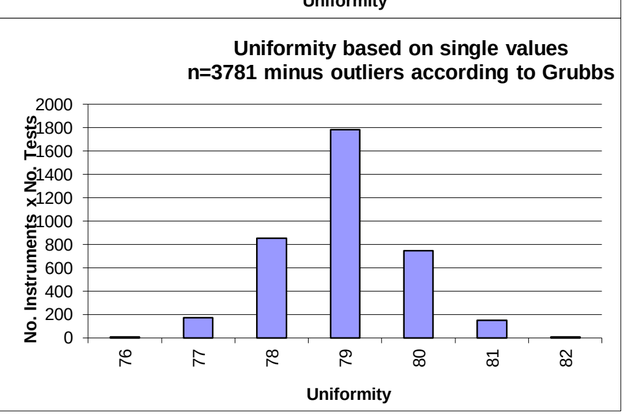




Cotton 4







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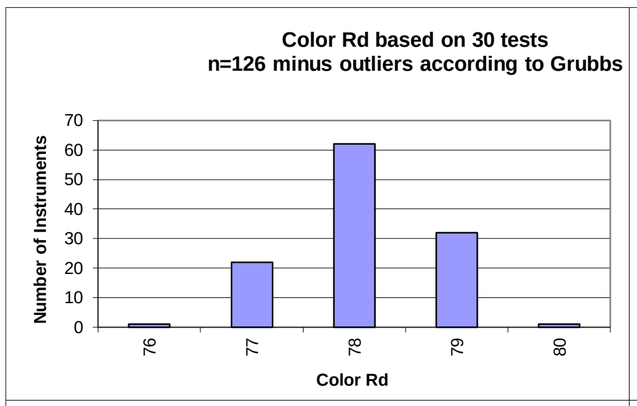
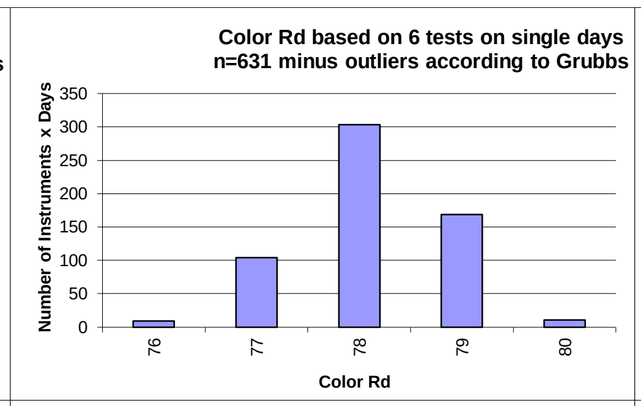
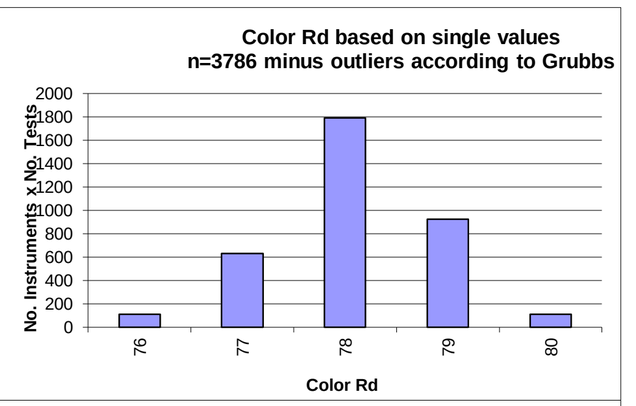
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Color Rd

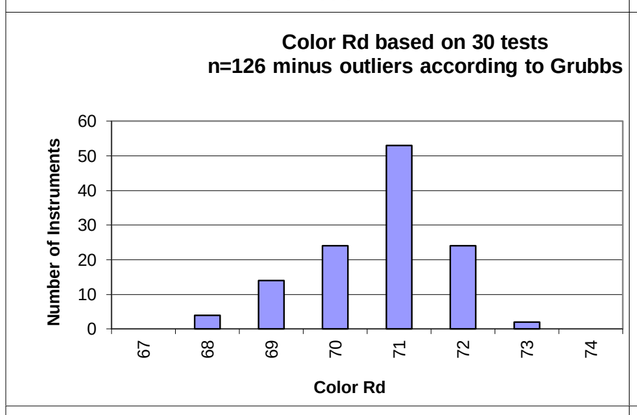
Cotton 1

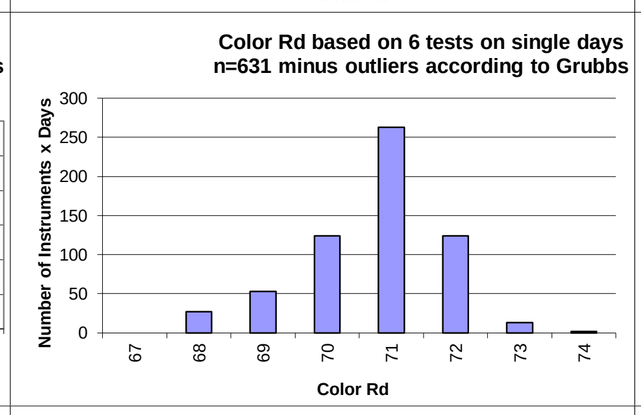


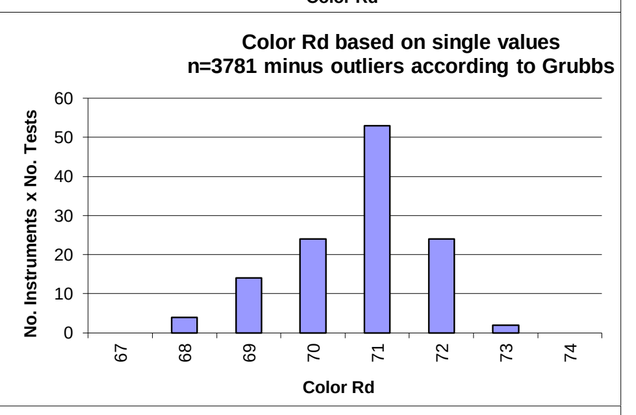




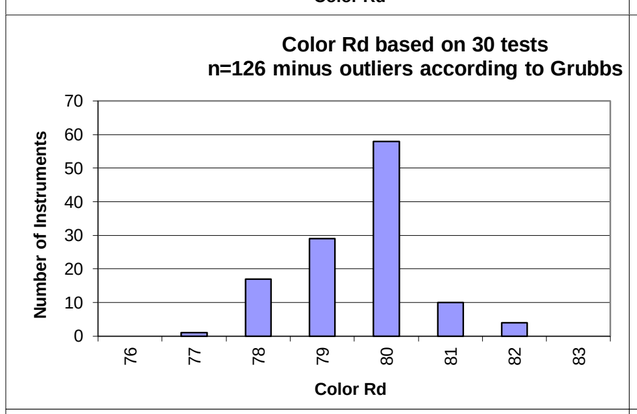
Cotton 2

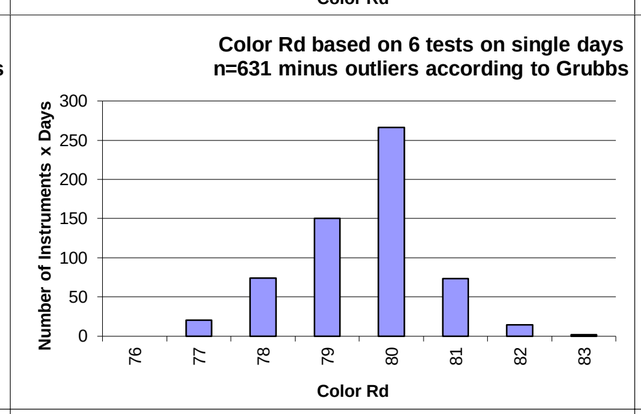


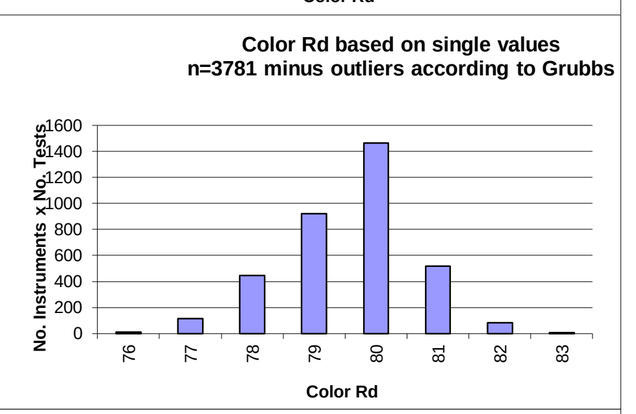




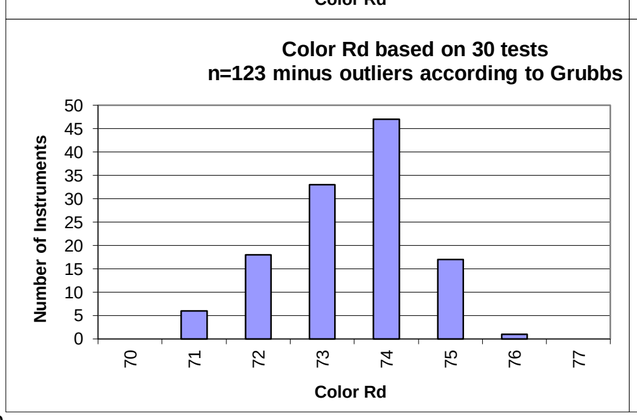
Cotton 3

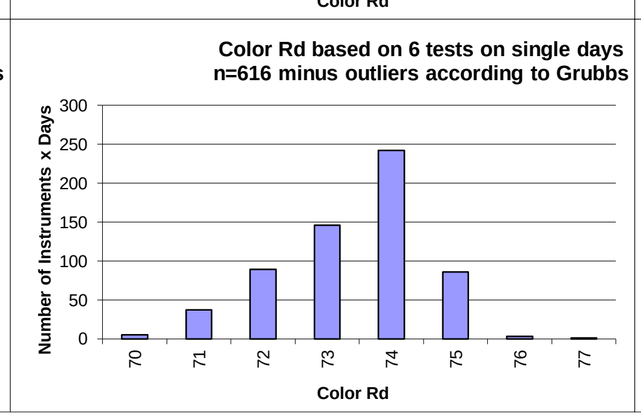


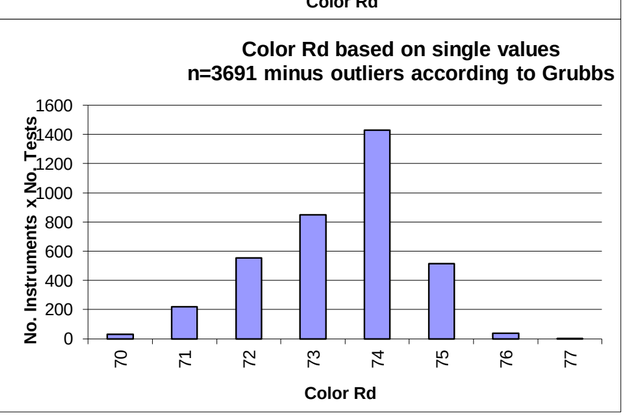




Cotton 4







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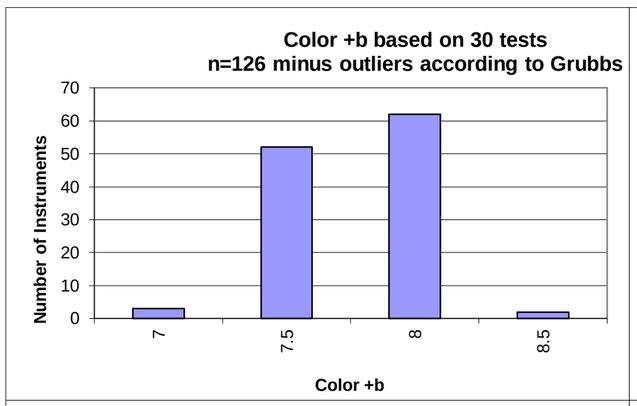
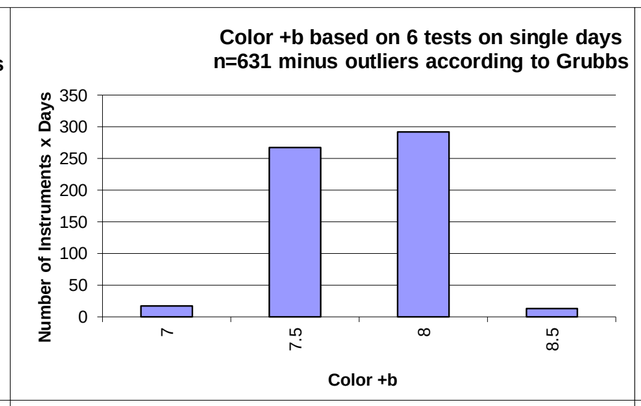
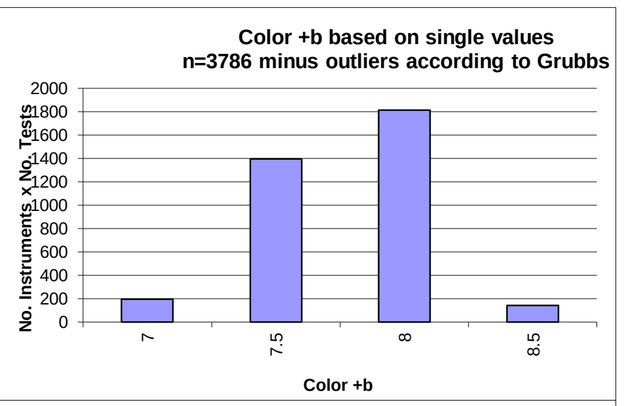
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Color +b

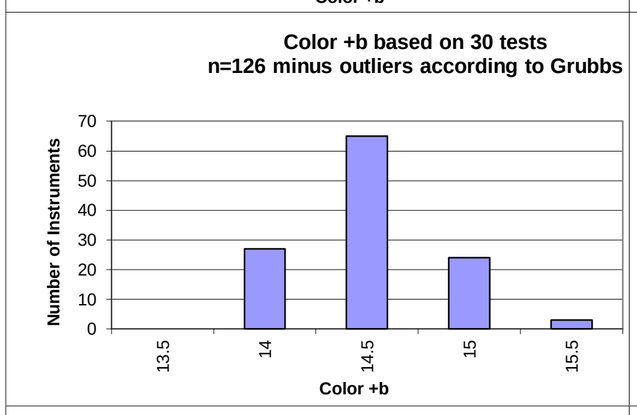
Cotton 1

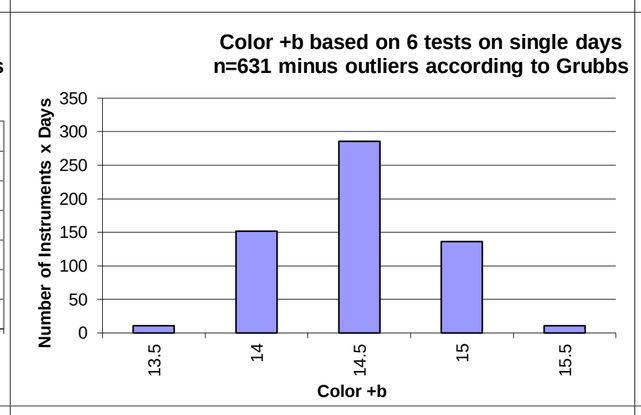


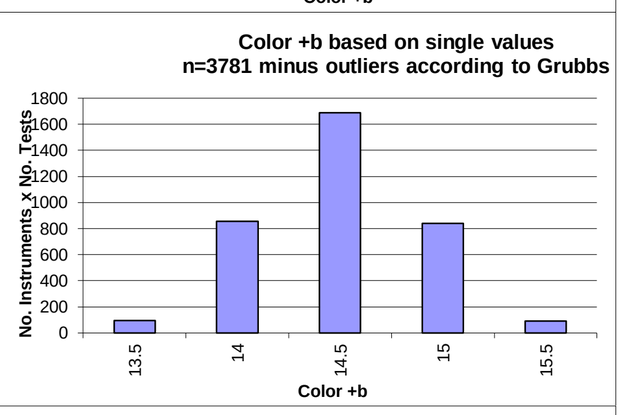




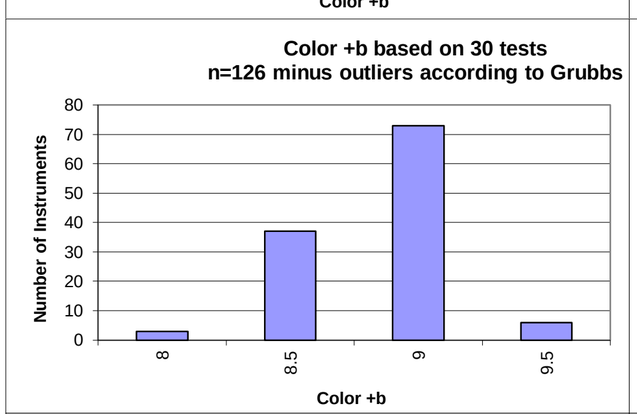
Cotton 2

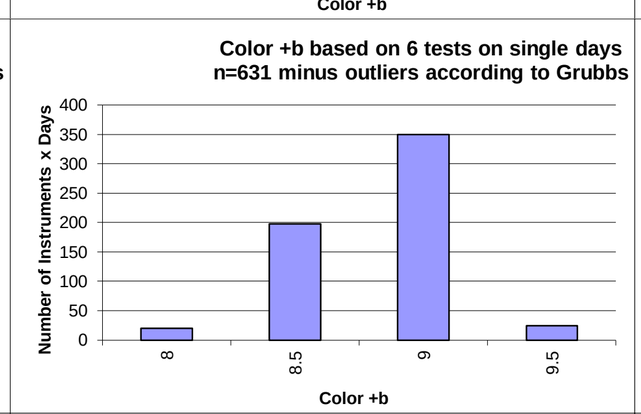


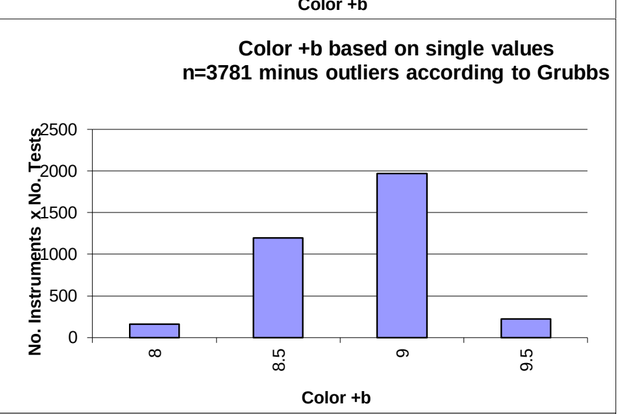




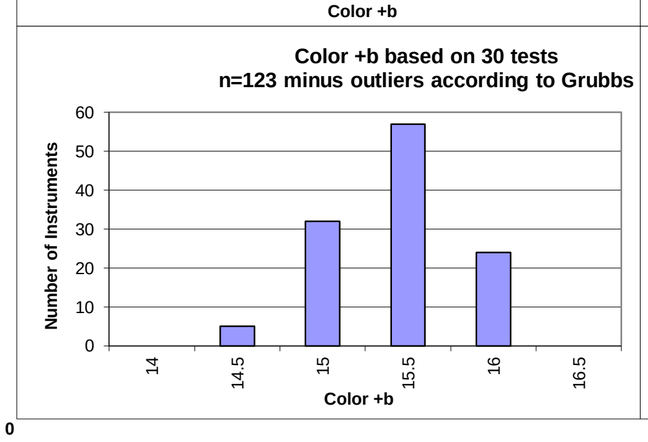
Cotton 3

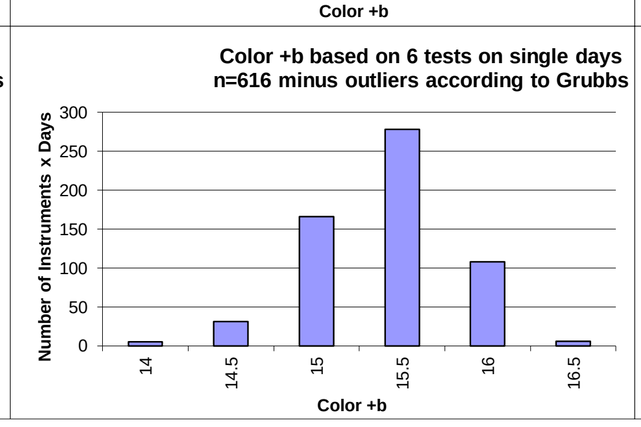


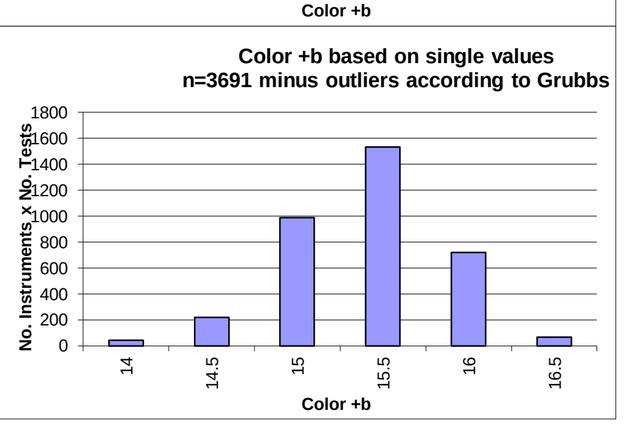




Cotton 4







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)			17.51	17.95	16.33	18.24	
Reference Values for Evaluation			17.51	17.95	16.33	18.24	
Number Of Instruments			91	91	91	91	**91**
Inter-Instrument Variation	based on 30 tests	SD	7.26	8.53	6.86	8.06	**7.68**
		CV %	41.4	47.5	42.0	44.2	**43.8**
	based on 6 tests	SD	7.68	8.63	7.19	8.51	**8.00**
		CV %	43.9	48.1	44.0	46.7	**45.7**
	based on single tests	SD	8.07	8.94	7.64	8.80	**8.36**
		CV %	46.1	49.8	46.8	48.2	**47.7**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	1.94	2.26	1.91	1.96	**2.02**
		CV %	11.1	12.6	11.7	10.8	**11.5**
	between single tests on one day	SD	2.24	2.18	1.96	2.23	**2.15**
		CV %	12.8	12.2	12.0	12.2	**12.3**
	between all tests on different days	SD	3.22	3.36	3.05	3.48	**3.28**
		CV %	18.4	18.7	18.7	19.1	**18.7**

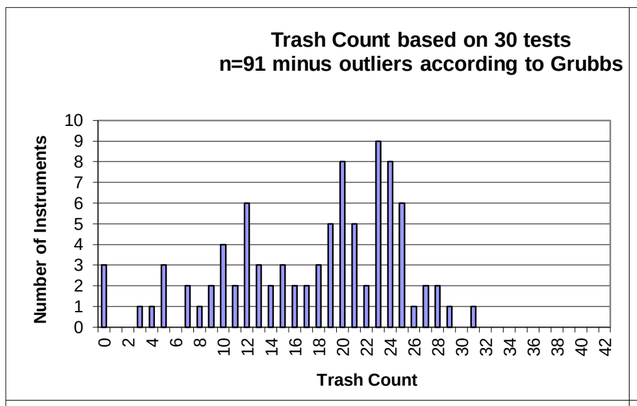
Trash Area							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			0.186	0.157	0.171	0.158	
Reference Values for Evaluation			0.186	0.157	0.171	0.158	
Number Of Instruments			91	91	91	91	**91**
Inter-Instrument Variation	based on 30 tests	SD	0.066	0.053	0.044	0.053	**0.054**
		CV %	35.2	33.6	25.5	33.3	**31.9**
	based on 6 tests	SD	0.070	0.056	0.053	0.055	**0.058**
		CV %	37.4	35.9	30.7	34.6	**34.6**
	based on single tests	SD	0.080	0.060	0.065	0.062	**0.067**
		CV %	43.2	38.5	37.7	39.1	**39.6**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.025	0.021	0.028	0.021	**0.024**
		CV %	13.5	13.7	16.1	13.3	**14.2**
	between single tests on one day	SD	0.031	0.027	0.029	0.022	**0.027**
		CV %	16.5	17.3	16.9	13.9	**16.1**
	between all tests on different days	SD	0.043	0.038	0.046	0.037	**0.041**
		CV %	23.1	24.1	26.6	23.3	**24.3**

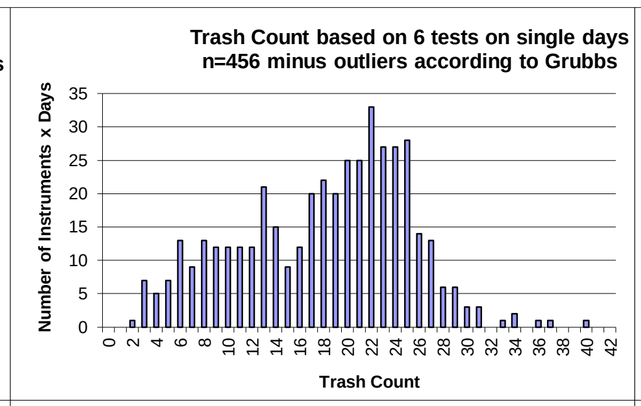
Maturity							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			87.92	82.29	88.80	78.42	
Reference Values for Evaluation			87.92	82.29	88.80	78.42	
Number Of Instruments			96	97	96	97	**97**
Inter-Instrument Variation	based on 30 tests	SD	1.93	2.71	1.95	4.33	**2.73**
		CV %	2.2	3.3	2.2	5.5	**3.3**
	based on 6 tests	SD	1.87	2.21	2.01	4.29	**2.60**
		CV %	2.1	2.7	2.3	5.5	**3.1**
	based on single tests	SD	1.96	2.47	2.04	4.18	**2.66**
		CV %	2.2	3.0	2.3	5.3	**3.2**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.20	0.22	0.23	0.14	**0.20**
		CV %	0.2	0.3	0.3	0.2	**0.2**
	between single tests on one day	SD	0.35	0.38	0.38	0.24	**0.34**
		CV %	0.4	0.5	0.4	0.3	**0.4**
	between all tests on different days	SD	0.46	0.48	0.50	0.35	**0.45**
		CV %	0.5	0.6	0.6	0.4	**0.5**

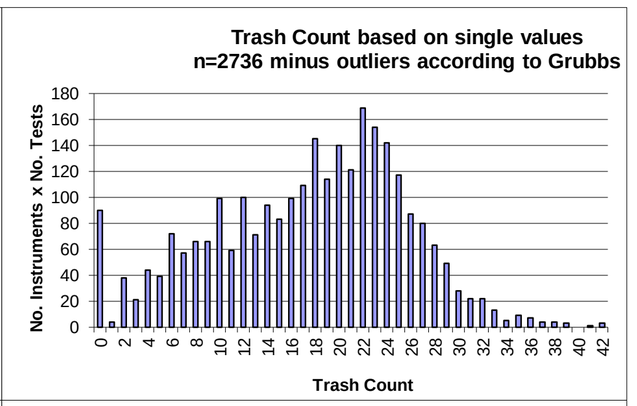
SFI							
			Cotton 1	**Cotton 2**	**Cotton 3**	**Cotton 4**	**Average**
Average of Instruments (Grubbs)			12.23	9.38	12.23	12.79	
Reference Values for Evaluation			12.23	9.38	12.23	12.79	
Number Of Instruments			104	104	104	104	**104**
Inter-Instrument Variation	based on 30 tests	SD	1.31	1.21	1.30	1.57	**1.35**
		CV %	10.7	12.9	10.6	12.3	**11.6**
	based on 6 tests	SD	1.40	1.17	1.29	1.59	**1.36**
		CV %	11.4	12.5	10.6	12.4	**11.7**
	based on single tests	SD	1.52	1.23	1.51	1.68	**1.48**
		CV %	12.4	13.2	12.4	13.1	**12.8**
Typical within-instrument Variation (Median)	between different days with each 6 tests	SD	0.36	0.29	0.38	0.37	**0.35**
		CV %	3.0	3.0	3.1	2.9	**3.0**
	between single tests on one day	SD	0.56	0.45	0.60	0.61	**0.56**
		CV %	4.6	4.8	4.9	4.7	**4.8**
	between all tests on different days	SD	0.65	0.53	0.71	0.69	**0.64**
		CV %	5.3	5.6	5.8	5.4	**5.5**

Test Result Distributions
Trash Count

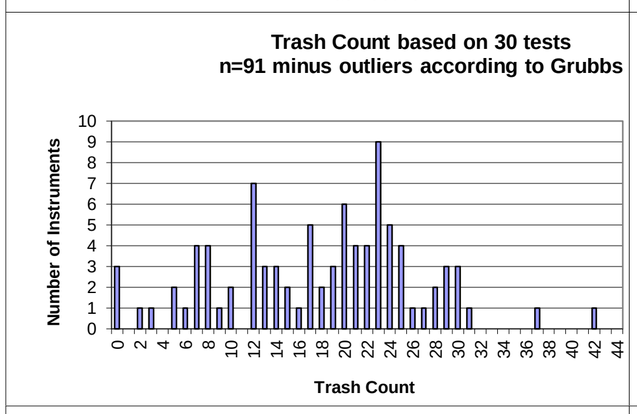
Cotton 1

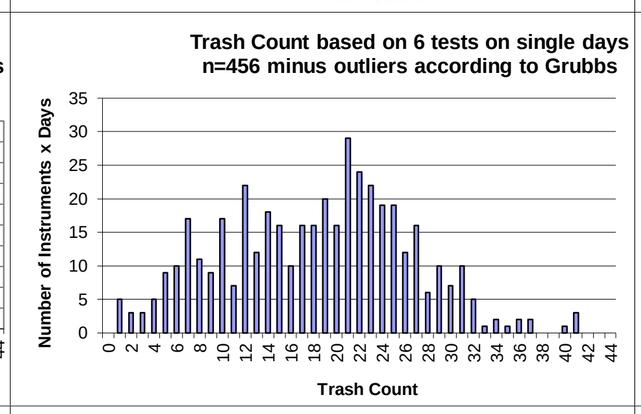


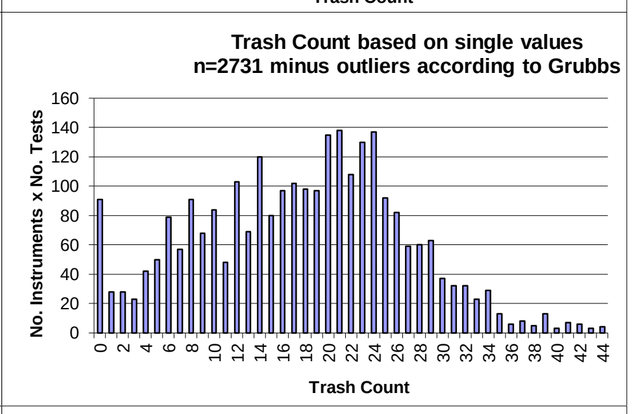




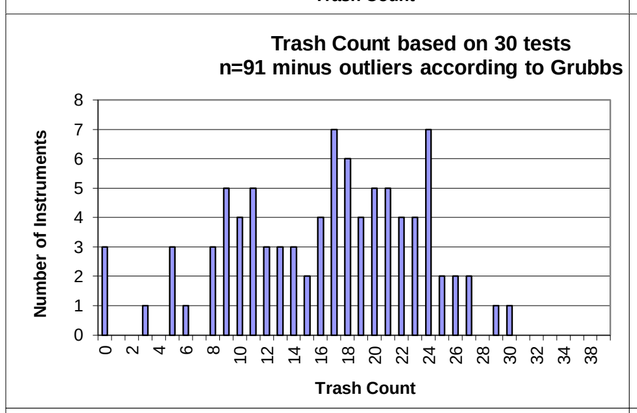
Cotton 2

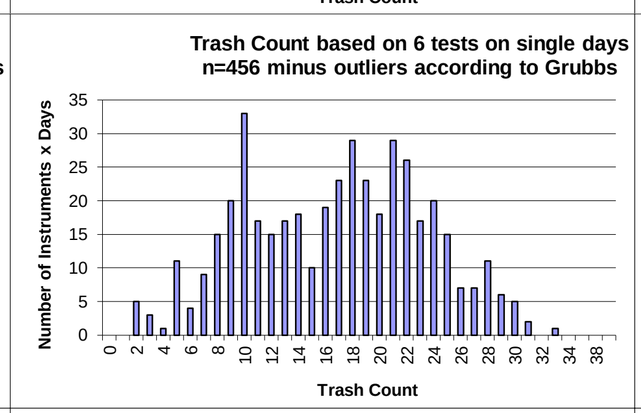


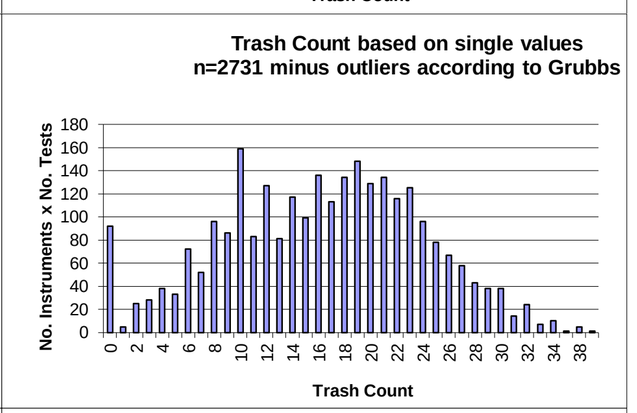




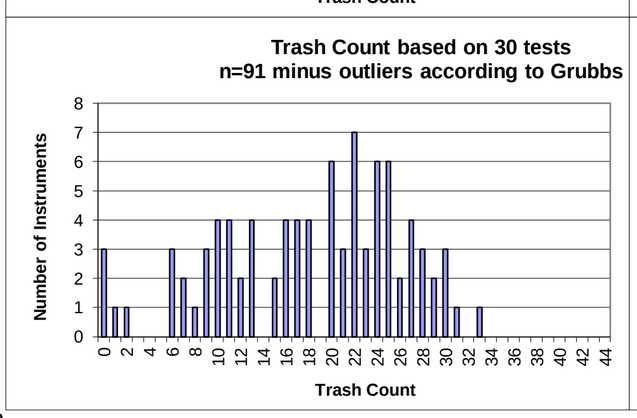
Cotton 3

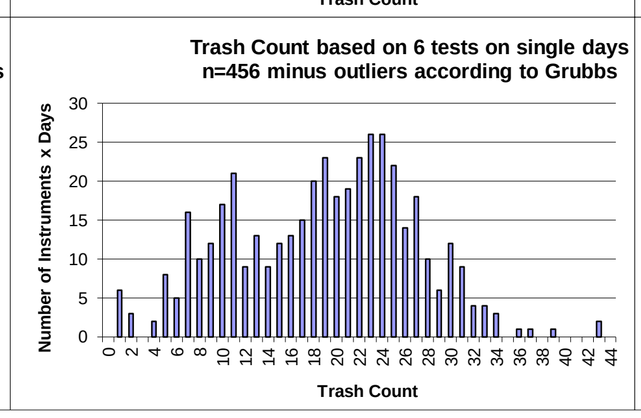


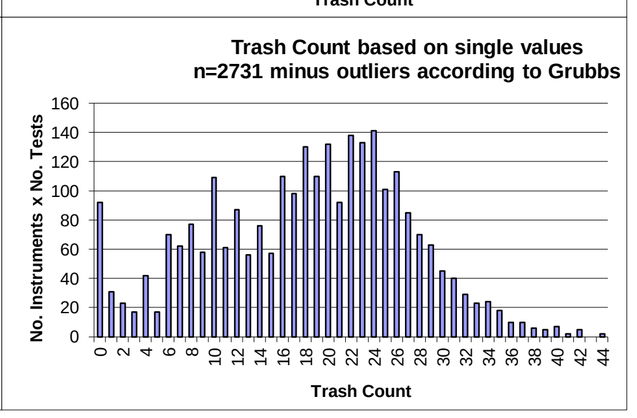




Cotton 4







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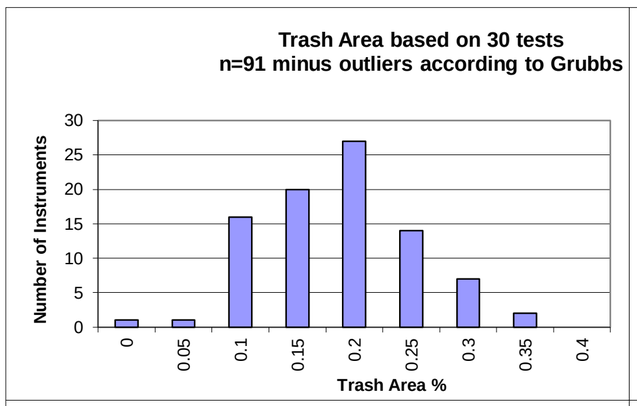
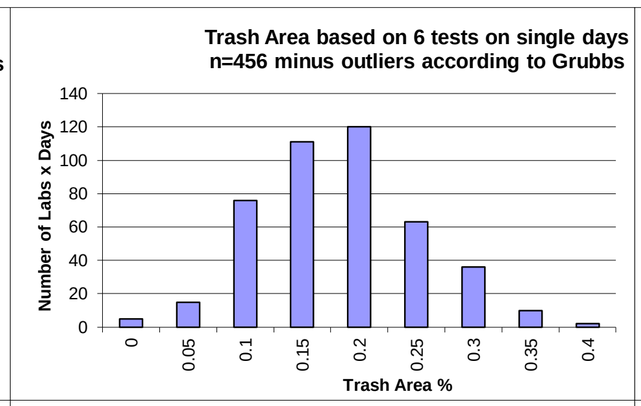
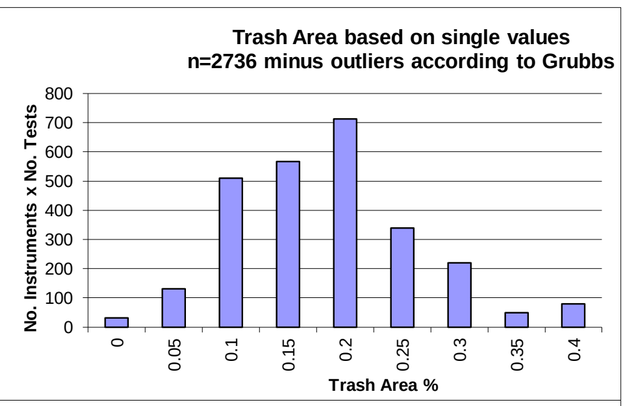
(Only results from instruments/days/single tests that are not regarded as outliers according to Grubbs' method)
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Trash Area

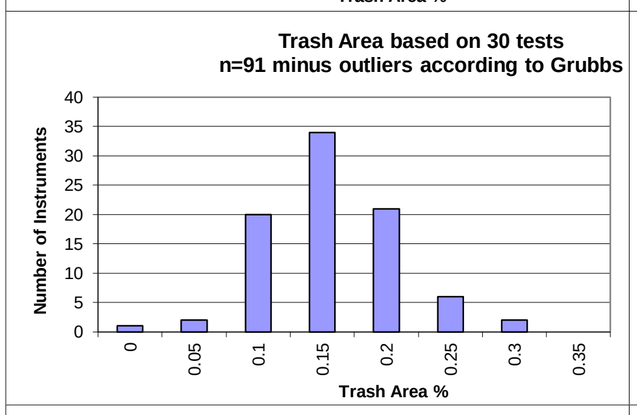
Cotton 1

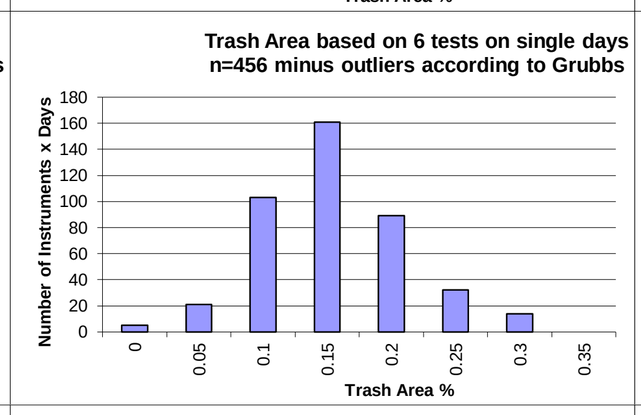


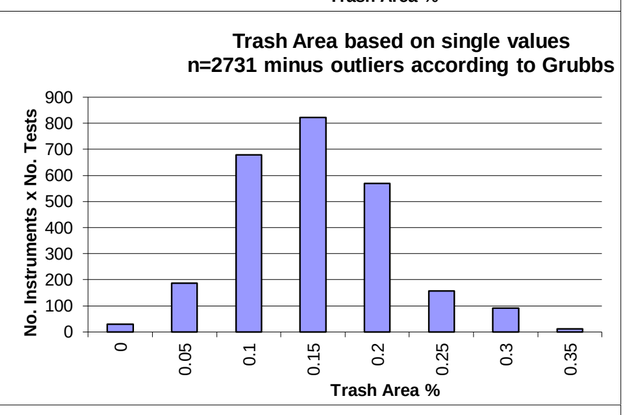




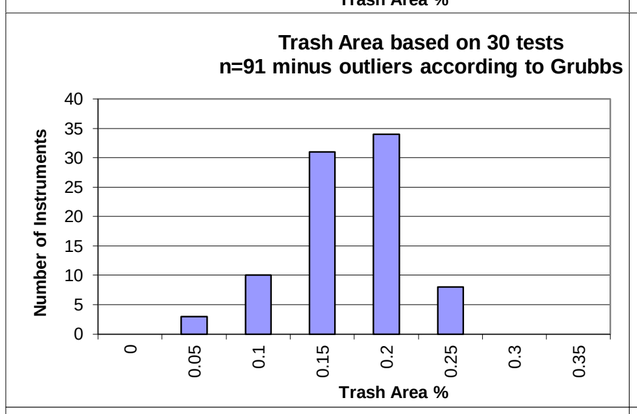
Cotton 2

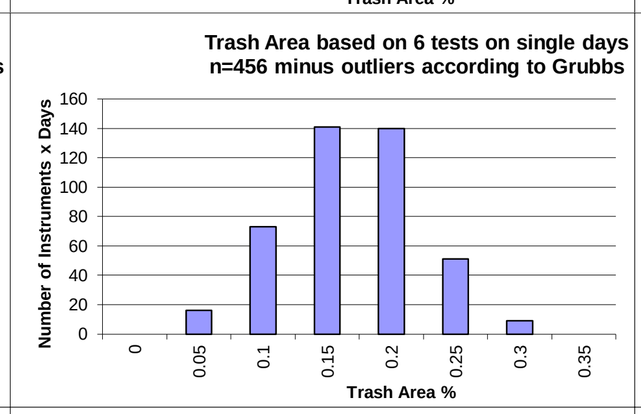


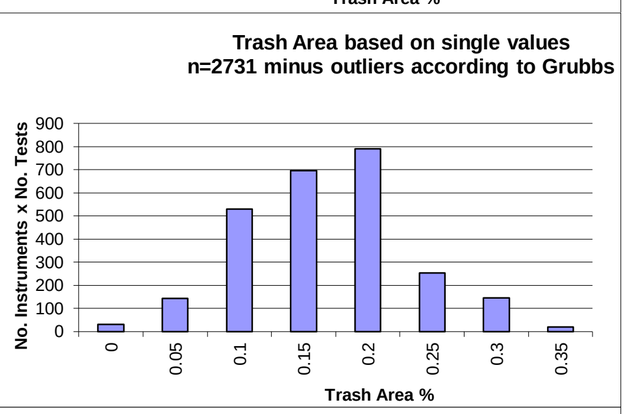




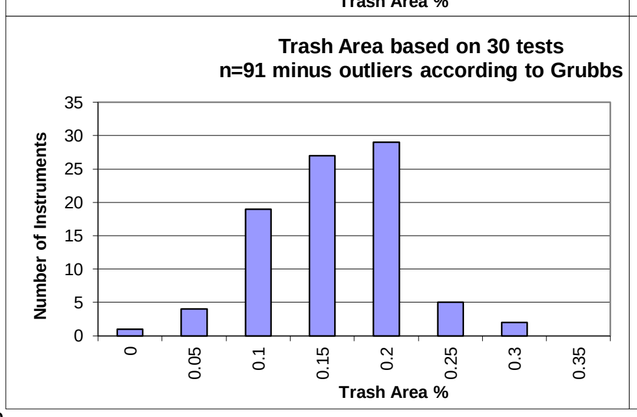
Cotton 3

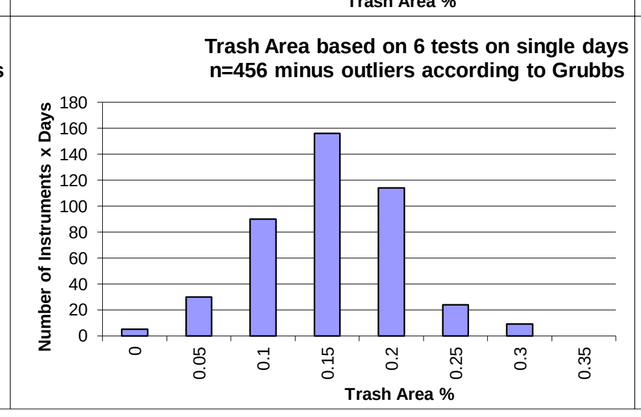


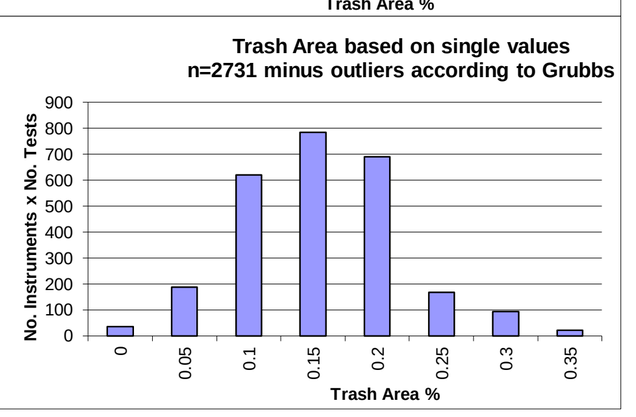




Cotton 4







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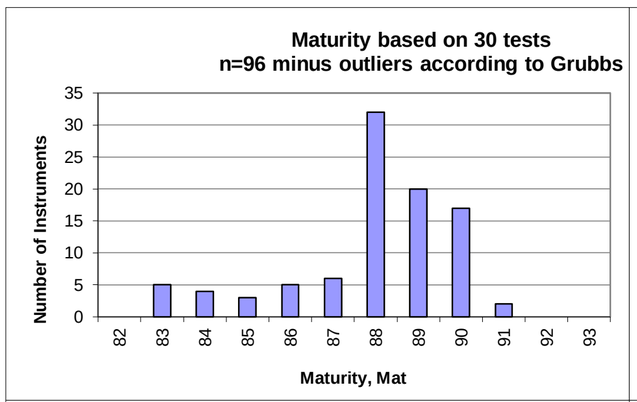
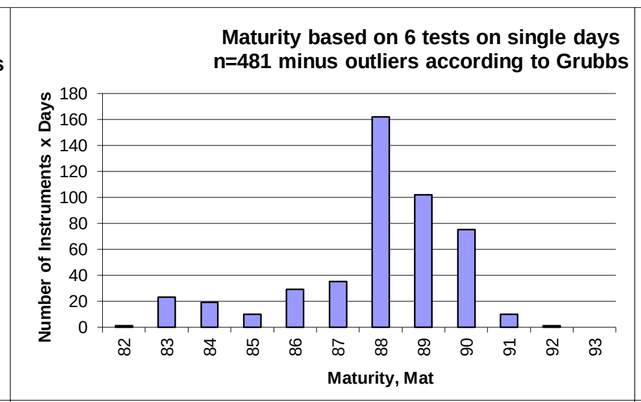
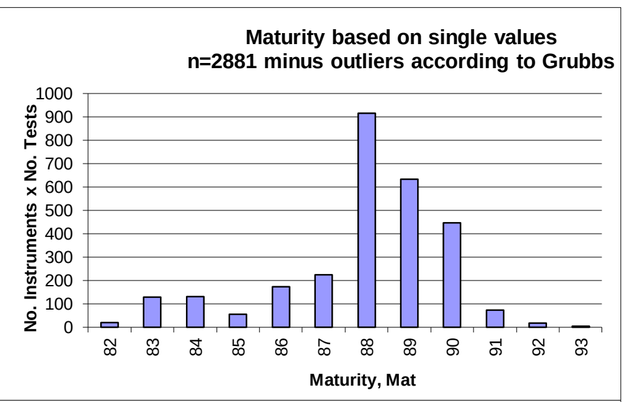
(classes are defined as > lower limit and <= upper limit)

Test Result Distributions
Maturity

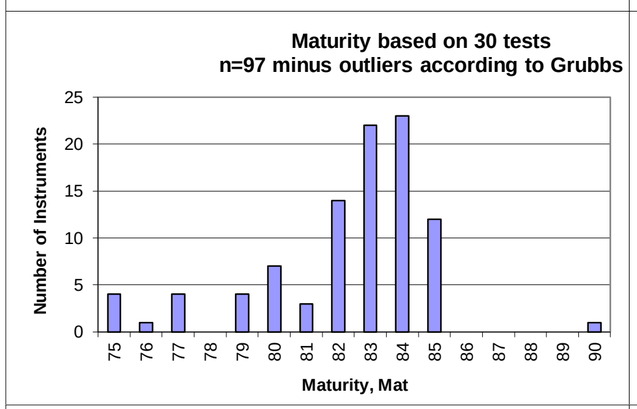
Cotton 1

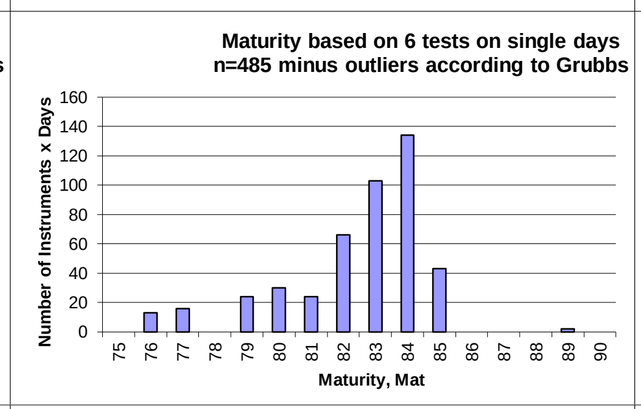


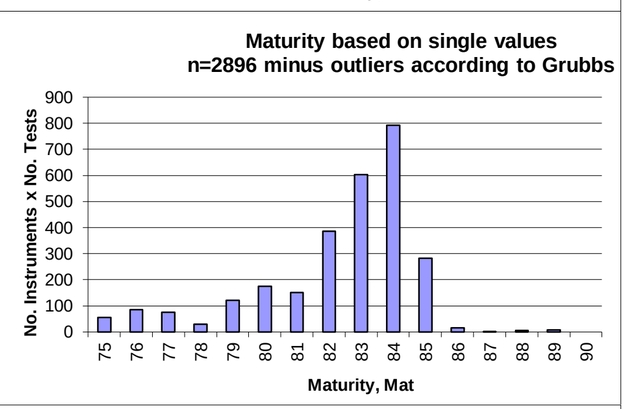




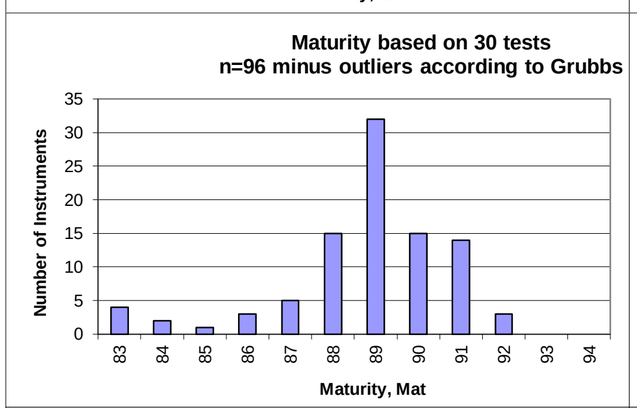
Cotton 2

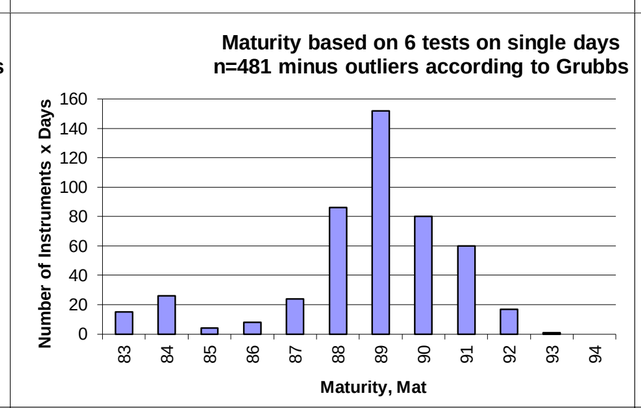


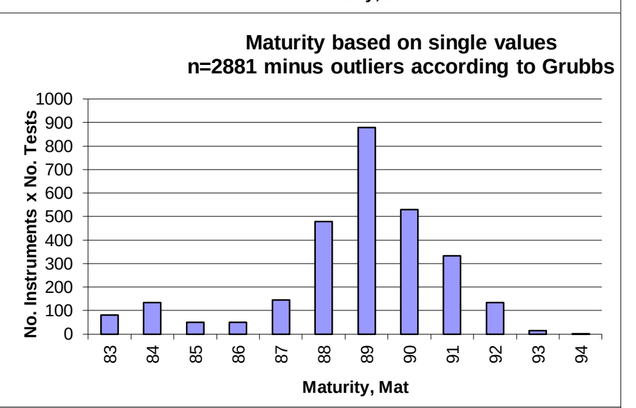




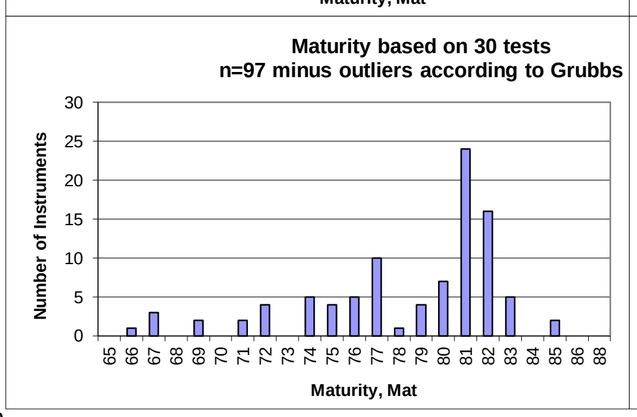
Cotton 3

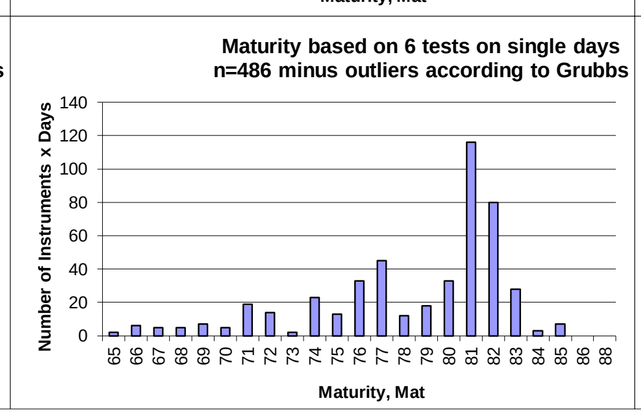


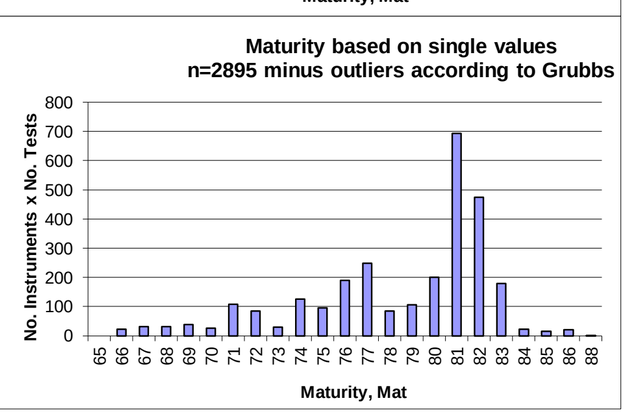




Cotton 4







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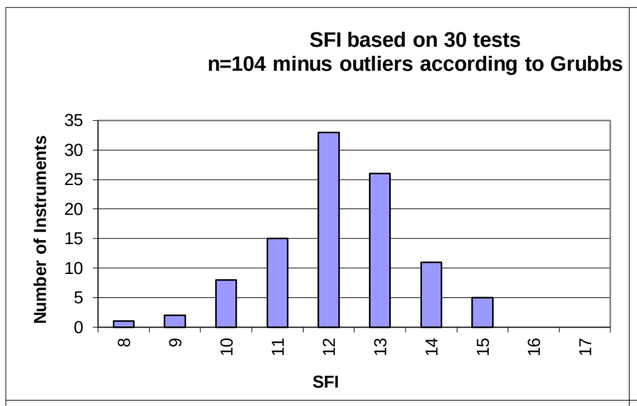
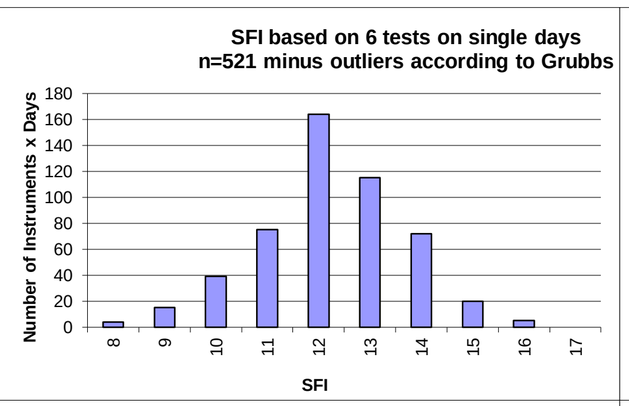
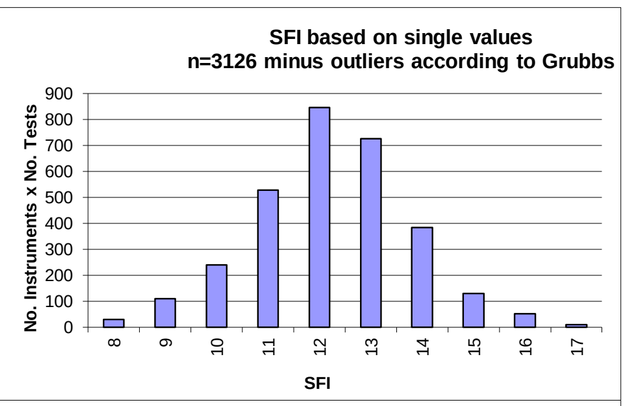
Test Result Distributions
SFI

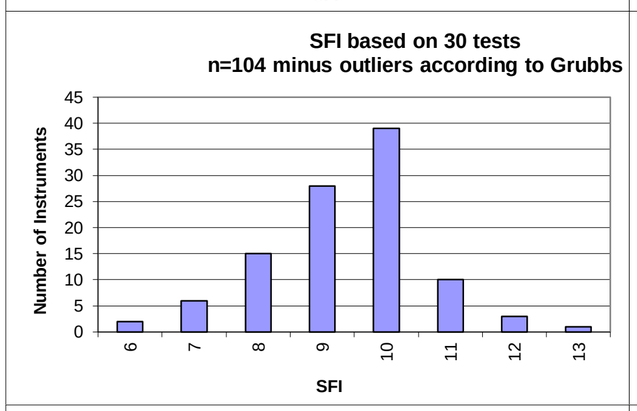
Cotton 1

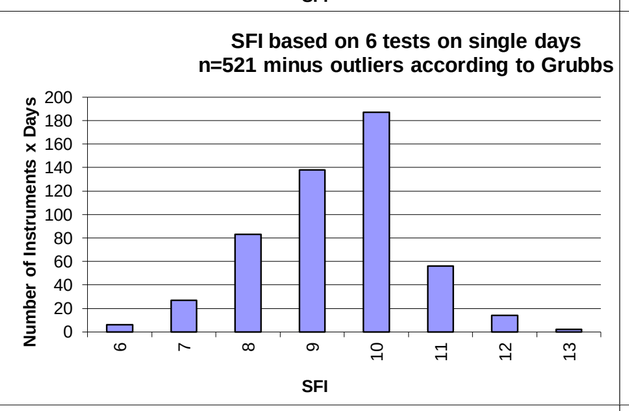


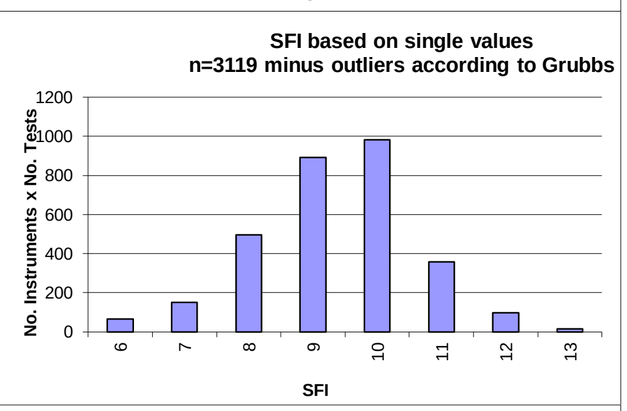




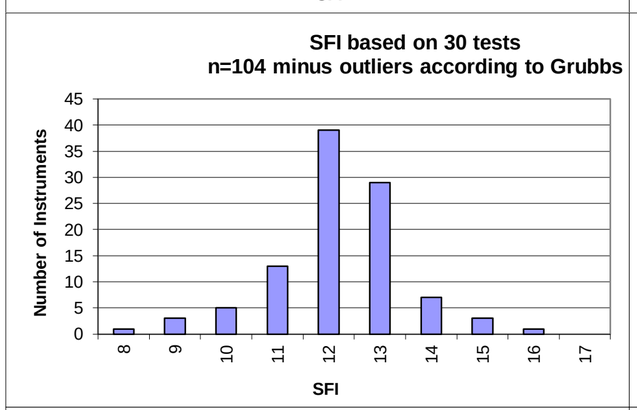
Cotton 2

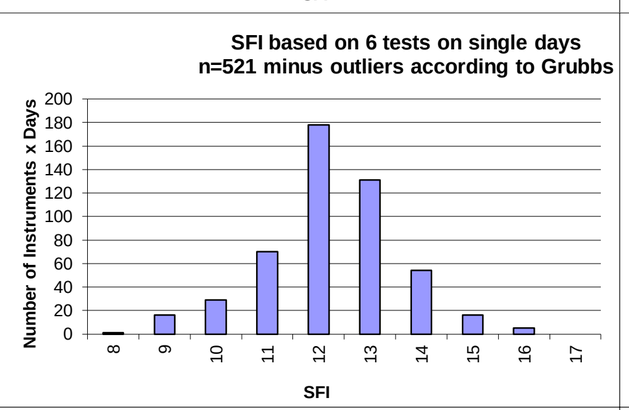


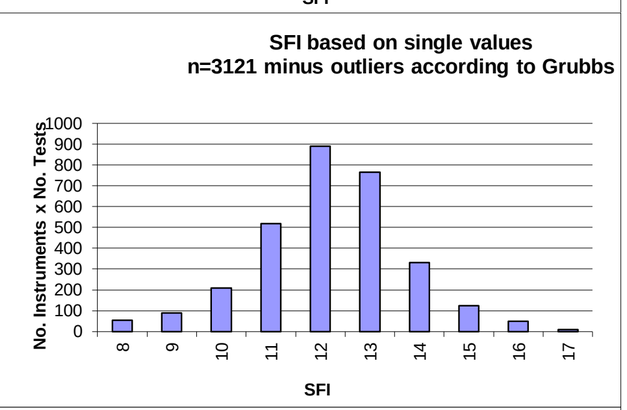




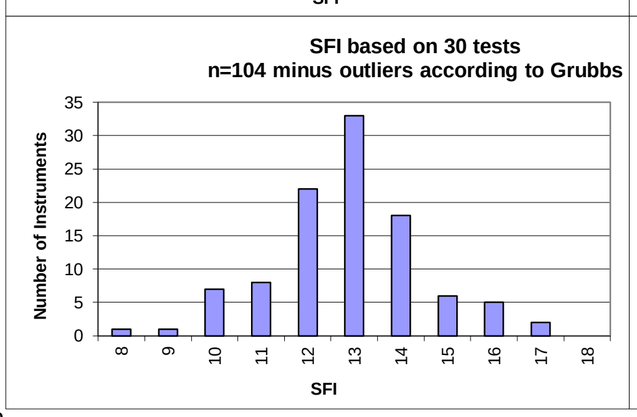
Cotton 3

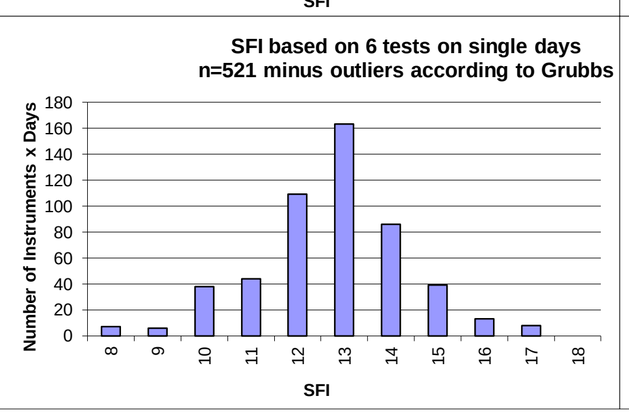


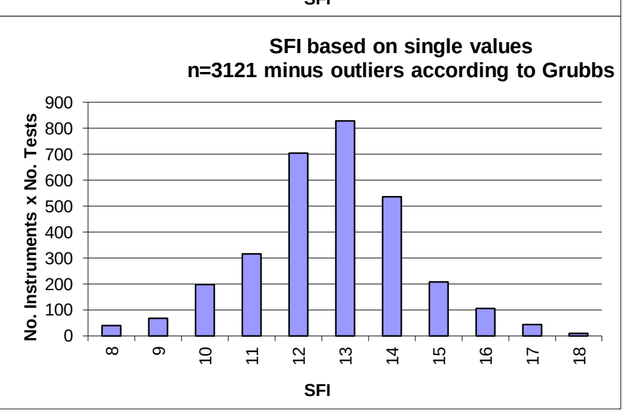




Cotton 4







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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 2013 - 2
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*

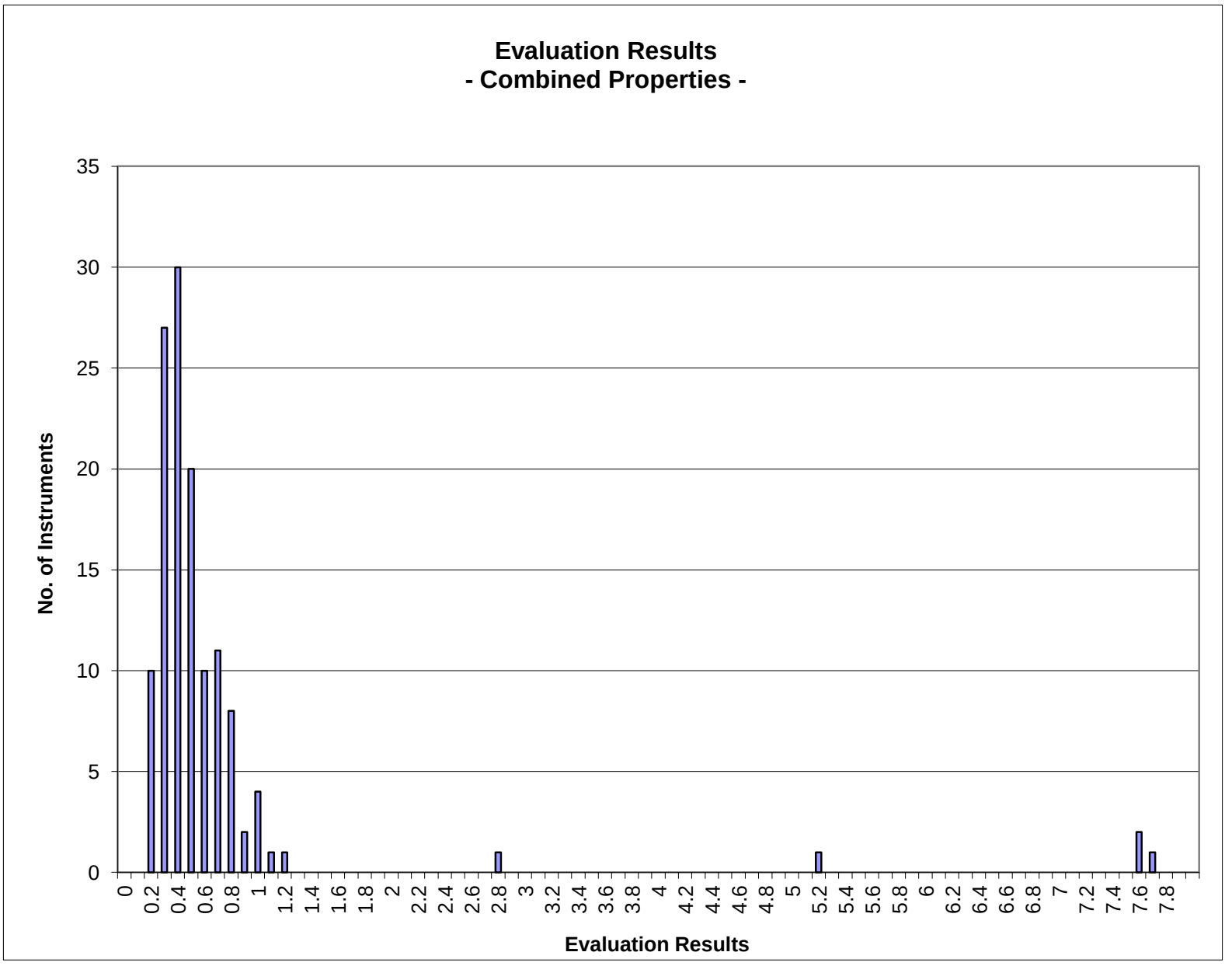
Instrument Evaluation

- Graph of Combined Properties -

According to ICAC CSITC Task Force Recommendations

Global - Round Trial 2013 - 2

		Evaluation Combined Prop.
Statistics	Average	0.70
	Median	0.44
	Best Instrument	0.16
	Worst Instrument	7.66



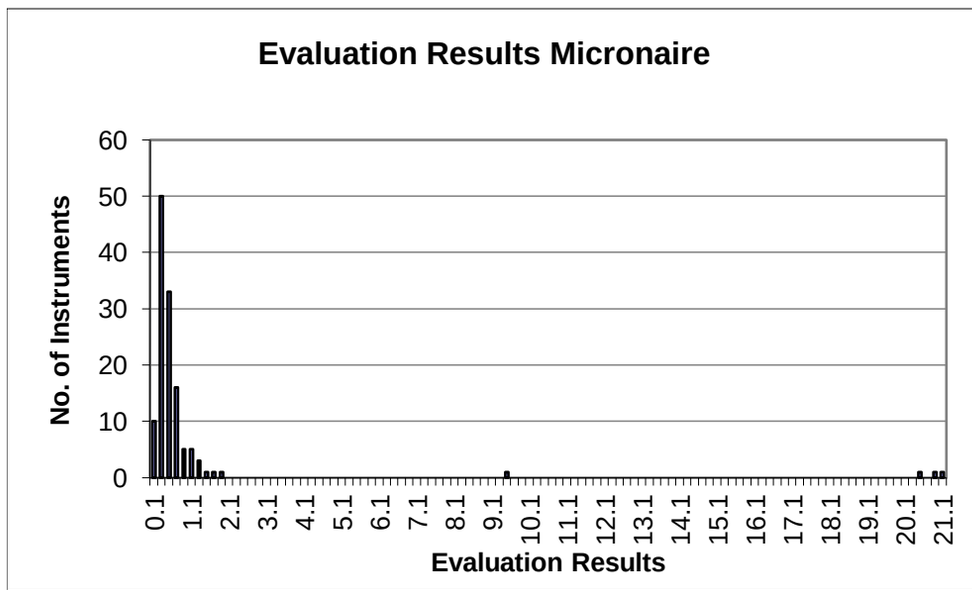
x-Axis shows midpoints of classes

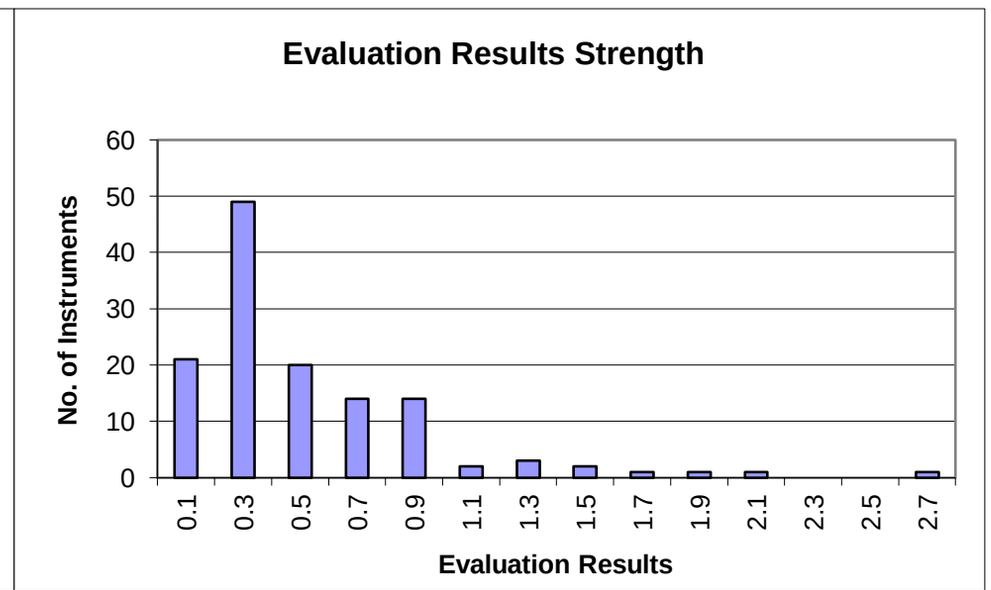
The evaluation results are entered based on the unrounded values

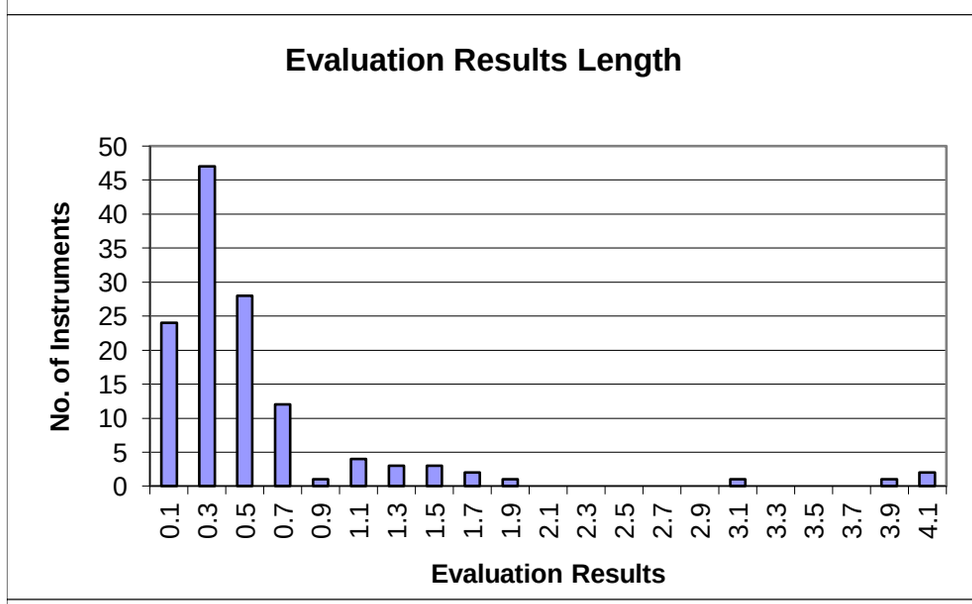
(classes are defined as > lower limit and <= upper limit)

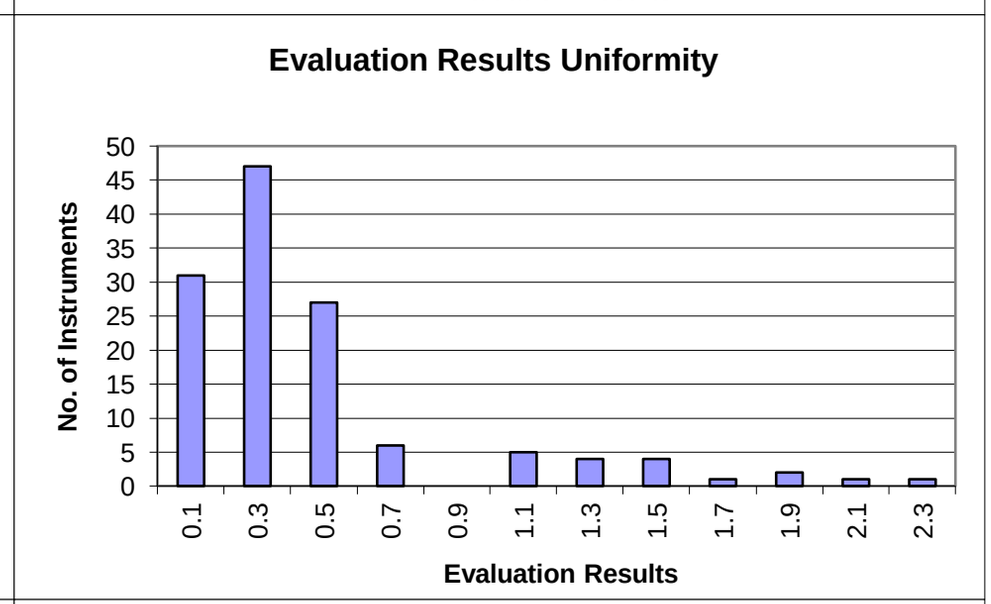
Instrument Evaluation
- Graph of Single Properties -
According to ICAC CSITC Task Force Recommendations
Global - Round Trial 2013 - 2

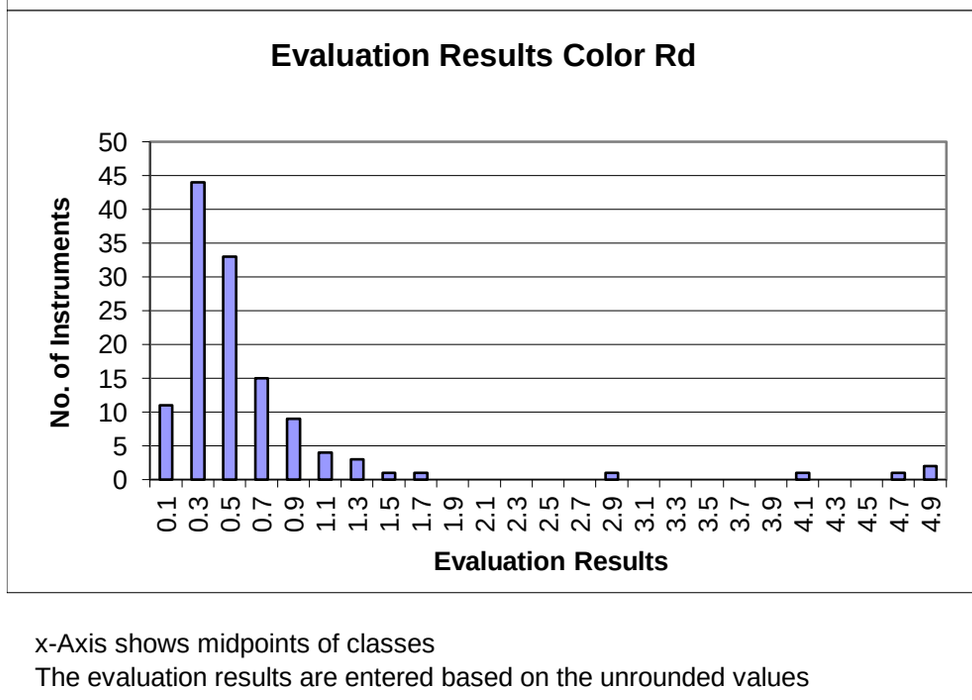
		Evaluation Micronaire	Evaluation Strength	Evaluation Length	Evaluation Uniformity	Evaluation Color Rd	Evaluation Color +b
Statistics	Average	1.04	0.52	0.56	0.48	0.67	0.95
	Median	0.43	0.38	0.38	0.36	0.47	0.47
	Best Instr.	0.07	0.06	0.06	0.06	0.12	0.09
	Worst Instr.	21.16	2.61	4.13	2.23	4.92	12.86

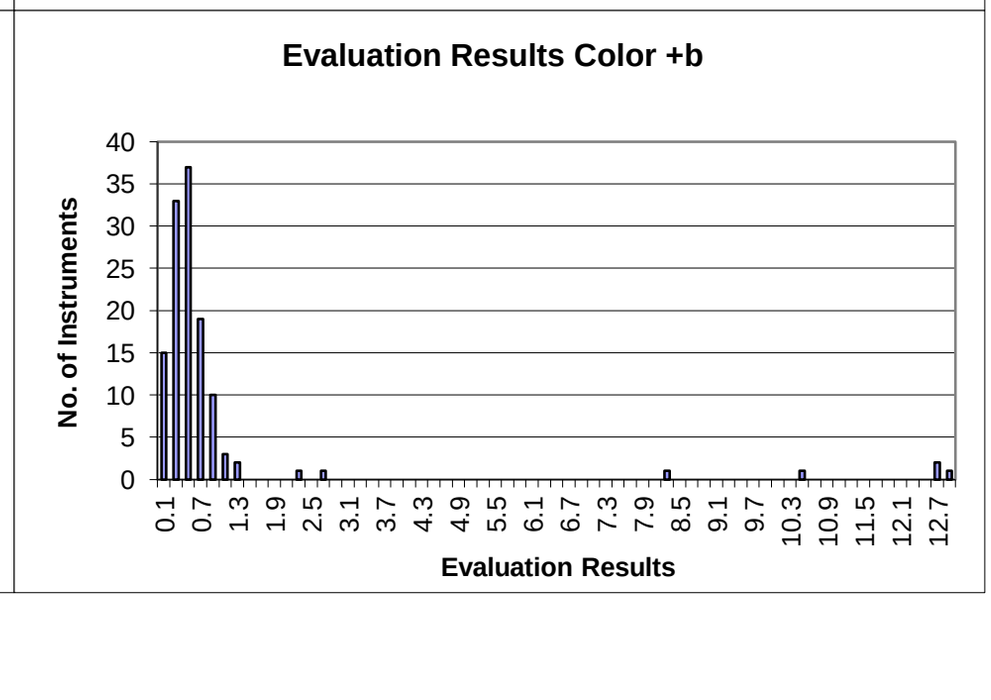












x-Axis shows midpoints of classes
The evaluation results are entered based on the unrounded values

International Cotton Advisory Committee

CSITC
Global - Round Trial 2013 - 2
General Evaluation

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

Section Three: Within Limits Evaluation

Content:

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

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

System Provided by:
Generation 10 Limited

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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	95.9	93.2	93.7	97.5	84.9	94.6
Completely within limits	93.0	83.7	86.0	93.8	69.8	92.1
% of Instruments ≥75% within limits	95.3	92.2	93.0	94.6	82.5	94.4
% of Instruments ≥50% within limits	97.7	96.9	96.1	100.0	91.3	95.2

Percentage of Results Within Limits						
Instrument	**Micronaire**	**Strength**	**Length**	**Uniformity**	**Color Rd**	**Color +b**
GL132-001-01	50	75	75	50	25	0
GL132-002-01	100	100	100	100	100	100
GL132-002-02	100	100	100	100	100	100
GL132-002-04	100	100	100	100	75	100
GL132-003-49	100	100	100	100	100	100
GL132-003-50	100	100	100	100	100	100
GL132-006-01	100	100	100	100	100	100
GL132-006-04	100	100	100	100	100	100
GL132-006-05	100	100	100	100	100	100
GL132-008-01	100	100	100	100	50	100
GL132-009-01	100	100	100	100	75	100
GL132-010-03	100	100	100	100	75	100
GL132-010-04	100	100	100	100	75	100
GL132-010-05	100	100	100	100	100	100
GL132-011-01	100	100	75	100	50	100
GL132-012-01	100	100	100	100	50	100
GL132-013-20	100	100	100	100	100	100
GL132-013-25	100	100	100	100	100	100
GL132-014-01	100	100	100	100	100	100
GL132-015-02	100	100	100	100	25	100
GL132-016-01	100	100	75	50	100	100
GL132-018-01	100	100	100	100	100	100
GL132-018-02	100	100	100	100	100	100
GL132-019-01	100	100	100	100	100	100
GL132-019-03	75	100	100	100	100	100
GL132-021-01	100	75	100	100	100	100
GL132-021-02	100	100	100	100	100	100
GL132-022-01	100	75	100	100	100	100
GL132-024-01	100	100	100	100	50	100
GL132-025-01	100	100	100	100	100	100
GL132-026-01	100	100	100	100	100	100
GL132-027-01	100	100	100	100	100	100
GL132-028-01	100	100	100	100	100	100
GL132-029-01	100	75	100	100	100	100
GL132-030-02	100	75	100	100	0	75
GL132-031-01	100	100	100	100	100	100
GL132-031-02	100	100	100	100	75	100
GL132-031-04	100	100	100	100	100	100
GL132-031-05	100	100	100	100	100	100

GL132-032-01	100	50	100	100	100	100
GL132-033-01	100	100	100	100	100	75
GL132-035-01	100	100	75	100	75	100
GL132-038-01	100	75	100	100	100	100
GL132-039-02	100	100	75	100	50	100
GL132-039-03	100	50	25	100	25	100
GL132-041-01	100	100	100	100	75	100
GL132-042-15	100	75	75	100	75	100
GL132-043-01	100	100	100	100	75	100
GL132-044-01	100	100	100	100	100	100
GL132-044-04	100	100	100	100	100	100
GL132-045-01	100	100	100	100	100	100
GL132-046-01	100	100	100	100	75	100
GL132-047-01	100	100	100	100	50	100
GL132-049-01	100	100	75	100	75	100
GL132-049-02	100	100	100	100	75	100
GL132-049-03	100	100	100	100	100	100
GL132-049-04	100	100	100	100	75	100
GL132-050-01	100	100	75	100		
GL132-051-01	100	25	50	100	100	100
GL132-052-01	100	50	100	100	100	100
GL132-053-01	100	100	100	100	100	100
GL132-054-03	100	100	100	100	100	100
GL132-055-03	100	100	100	100	100	100
GL132-055-04	100	100	100	100	100	100
GL132-055-06	100	100	100	100	100	100
GL132-056-01	100	100	100	100	100	100
GL132-057-01	100	50	100	100	75	100
GL132-058-01	100	100	100	100	100	100
GL132-058-02	100	100	100	100	100	100
GL132-058-03	100	100	100	100	100	100
GL132-058-04	100	100	100	100	100	100
GL132-059-01	100	100	100	100	100	75
GL132-060-02	50	50	50	75	0	25
GL132-062-01	100	100	100	100	100	100
GL132-063-02	100	75	100	100	100	100
GL132-063-03	100	100	100	100	100	100
GL132-064-01	100	100	100	100		
GL132-065-01	100	100	100	100	100	100
GL132-067-02	100	100	100	100	100	100
GL132-067-06	100	100	100	100	100	100
GL132-068-01	100	100	100	100	100	100
GL132-068-02	100	100	100	100	100	100
GL132-069-01	100	100	100	100	100	100
GL132-069-02	100	100	100	100	100	100
GL132-070-03	50	75	100	100	25	25
GL132-072-01	100	100	100	100	100	100
GL132-073-01	100	100	100	100	25	100
GL132-076-01	100	100	100	100	100	100
GL132-077-01	100	100	100	100	100	100
GL132-077-02	100	100	100	100	100	100
GL132-078-03	100	100	100	100	100	100
GL132-078-07	100	100	100	100	100	100
GL132-078-08	100	100	100	100	100	100
GL132-078-09	100	100	100	100	100	100
GL132-079-04	100	100	100	100	100	100
GL132-080-01	75	100	75	50	75	100
GL132-081-01	100	100	25	100	100	100
GL132-081-02	100	100	100	100	100	100
GL132-082-01	100	100	100	100	50	100

GL132-083-01	100	100	100	100	75	100
GL132-083-02	100	100	100	100	100	100
GL132-083-03	100	100	100	100	100	100
GL132-083-04	100	100	100	100	100	100
GL132-084-01	100	100	100	100	100	100
GL132-085-02	100	100	100	100	50	100
GL132-087-01	100	100	100	100	100	100
GL132-087-02	100	100	100	100	100	100
GL132-088-01	100	100	50	50	100	100
GL132-089-01	100	75	100	100	100	100
GL132-090-02	100	100	100	100	50	100
GL132-091-01	100	100	100	100	100	100
GL132-092-01	0	33	0	67	0	0
GL132-092-02	0	33	33	67	0	0
GL132-092-03	0	0	33	67	0	0
GL132-093-01	100	100	100	100	100	100
GL132-093-02	100	100	100	100	100	100
GL132-096-02	75	100	100	100	50	100
GL132-096-04	100	100	100	100	25	100
GL132-096-07	100	100	100	100	100	100
GL132-097-01	100	100	100	100		
GL132-097-02	100	100	100	100	100	100
GL132-098-01	100	100	100	100	100	100
GL132-099-01	100	50	100	100	100	50
GL132-100-02	100	100	100	100	100	100
GL132-100-05	100	75	50	100	50	100
GL132-100-06	100	100	100	100	100	100
GL132-101-03	100	100	100	100	100	100
GL132-102-01	100	100	100	100	100	100
GL132-104-01	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	1.0
	units	g/tex	inch	%	units	units
Average % Results within Limits	94.8	88.4	91.7	95.0	82.9	93.4
% of Instruments 100% within limits	65.9	30.2	40.3	49.6	30.2	69.8
% of Instruments ≥95% within limits	86.0	56.6	69.0	80.6	51.6	86.5
% of Instruments ≥75% within limits	95.3	82.9	89.1	90.7	77.0	93.7
% of Instruments ≥65% within limits	95.3	90.7	92.2	96.9	82.5	94.4
% of Instruments ≥50% within limits	96.1	95.3	96.1	99.2	88.1	95.2

Percentage of Results Within Limits						
Instrument	**Micronaire**	**Strength**	**Length**	**Uniformity**	**Color Rd**	**Color +b**
GL132-001-01	58	77	73	66	28	0
GL132-002-01	99	96	100	98	73	100
GL132-002-02	99	100	100	100	100	100
GL132-002-04	100	98	99	100	81	100
GL132-003-49	100	98	100	100	100	100
GL132-003-50	100	100	100	100	100	100
GL132-006-01	100	100	100	100	100	100
GL132-006-04	100	100	100	100	100	100
GL132-006-05	100	100	100	100	100	100
GL132-008-01	88	91	88	89	46	83
GL132-009-01	100	93	95	94	77	96
GL132-010-03	98	100	100	98	87	100
GL132-010-04	100	98	100	95	81	100
GL132-010-05	100	100	100	98	98	100
GL132-011-01	88	95	78	97	53	100
GL132-012-01	100	100	100	100	48	100
GL132-013-20	100	100	100	100	100	100
GL132-013-25	100	100	100	100	100	100
GL132-014-01	100	78	86	92	93	100
GL132-015-02	89	91	100	99	33	100
GL132-016-01	88	78	66	54	79	98
GL132-018-01	100	99	99	100	98	100
GL132-018-02	100	95	100	100	93	100
GL132-019-01	99	94	91	100	100	98
GL132-019-03	95	78	93	98	95	95
GL132-021-01	100	69	79	90	100	96
GL132-021-02	100	94	86	94	100	100
GL132-022-01	98	73	93	98	89	80
GL132-024-01	99	79	70	69	58	100
GL132-025-01	100	96	96	98	99	100
GL132-026-01	100	100	100	100	98	96
GL132-027-01	98	99	98	99	99	100
GL132-028-01	96	100	100	99	88	100
GL132-029-01	100	69	100	100	100	100
GL132-030-02	83	73	100	98	8	68
GL132-031-01	100	100	99	100	100	100

GL132-031-02	100	100	99	100	84	100
GL132-031-04	100	100	98	100	93	100
GL132-031-05	99	100	98	100	100	100
GL132-032-01	100	48	91	97	78	98
GL132-033-01	100	97	99	100	97	80
GL132-035-01	100	90	88	100	78	99
GL132-038-01	100	69	98	100	89	100
GL132-039-02	98	80	89	96	52	100
GL132-039-03	95	38	64	88	43	100
GL132-041-01	100	89	100	99	69	100
GL132-042-15	100	84	58	100	77	95
GL132-043-01	100	94	99	97	78	100
GL132-044-01	100	98	96	99	99	100
GL132-044-04	99	74	94	89	66	99
GL132-045-01	100	98	97	100	98	100
GL132-046-01	76	100	98	99	81	98
GL132-047-01	100	83	99	100	50	95
GL132-049-01	100	94	87	71	87	100
GL132-049-02	100	86	93	74	71	100
GL132-049-03	100	71	88	74	84	95
GL132-049-04	100	98	93	83	69	83
GL132-050-01	94	100	75	98		
GL132-051-01	98	51	59	92	99	90
GL132-052-01	100	51	99	98	91	98
GL132-053-01	93	100	100	100	100	100
GL132-054-03	100	100	100	100	100	100
GL132-055-03	100	100	99	100	100	100
GL132-055-04	100	100	100	100	100	100
GL132-055-06	100	100	100	100	100	100
GL132-056-01	100	90	89	96	94	99
GL132-057-01	100	63	98	96	71	100
GL132-058-01	100	100	100	100	99	100
GL132-058-02	100	100	100	100	100	100
GL132-058-03	100	100	100	100	97	100
GL132-058-04	100	100	100	100	95	100
GL132-059-01	100	98	100	100	95	76
GL132-060-02	48	27	44	69	1	13
GL132-062-01	100	100	100	100	88	99
GL132-063-02	100	75	100	99	95	100
GL132-063-03	100	99	100	100	90	100
GL132-064-01	88	72	80	88		
GL132-065-01	100	87	100	100	97	98
GL132-067-02	100	100	100	100	93	92
GL132-067-06	100	100	100	100	94	94
GL132-068-01	100	99	100	100	98	100
GL132-068-02	100	99	99	100	100	100
GL132-069-01	100	100	98	95	100	100
GL132-069-02	100	99	98	95	100	100
GL132-070-03	48	83	97	99	32	28
GL132-072-01	100	94	99	100	100	100
GL132-073-01	99	81	93	97	31	99
GL132-076-01	97	92	95	100	79	100
GL132-077-01	100	100	100	100	100	100
GL132-077-02	100	100	100	100	100	100
GL132-078-03	100	98	99	100	100	100
GL132-078-07	100	97	100	99	100	100
GL132-078-08	100	98	98	99	100	100
GL132-078-09	100	98	100	100	100	100
GL132-079-04	100	94	88	97	100	100
GL132-080-01	88	98	70	43	74	100

GL132-081-01	100	95	42	98	89	100
GL132-081-02	96	88	78	83	93	100
GL132-082-01	100	98	96	86	40	87
GL132-083-01	99	100	100	100	78	100
GL132-083-02	100	98	100	100	98	100
GL132-083-03	100	100	100	100	97	100
GL132-083-04	99	99	99	99	99	100
GL132-084-01	100	94	100	98	96	100
GL132-085-02	100	91	100	100	51	98
GL132-087-01	100	100	100	100	98	100
GL132-087-02	100	100	100	100	100	100
GL132-088-01	100	72	53	63	90	100
GL132-089-01	100	73	100	100	100	100
GL132-090-02	100	99	100	98	59	100
GL132-091-01	95	98	90	94	99	100
GL132-092-01	0	31	16	67	0	0
GL132-092-02	0	40	28	61	0	0
GL132-092-03	0	13	33	69	0	0
GL132-093-01	100	63	93	96	100	100
GL132-093-02	100	63	93	96	100	100
GL132-096-02	76	99	84	99	50	99
GL132-096-04	84	98	99	98	28	98
GL132-096-07	100	100	97	100	93	100
GL132-097-01	100	84	95	100		
GL132-097-02	99	100	98	100	79	100
GL132-098-01	100	77	97	98	95	100
GL132-099-01	96	50	97	100	99	50
GL132-100-02	95	83	96	98	100	100
GL132-100-05	95	76	59	100	58	100
GL132-100-06	98	96	99	100	99	100
GL132-101-03	100	98	100	100	100	100
GL132-102-01	98	97	100	100	100	100
GL132-104-01	100	86	100	100	98	100