

New: Instrument Evaluation for Trash

Dear CSITC Round Trial participants,

Up to now, 10 instrument test result parameters were analyzed in the CSITC Round Trials, but only 6 of them (Micronaire, Strength, Length UHML, Length Uniformity, Colour Rd, Colour +b) were taken for evaluating the laboratories with an Evaluation Grade for each property and an Overall Evaluation Grade.

For the other 4 properties (Maturity, Short Fibre Index, Trash Count and Trash Area), the difference between the results of your instrument and the average of all instruments was shown in the instrument reports on page 3, but no Evaluation results were calculated.

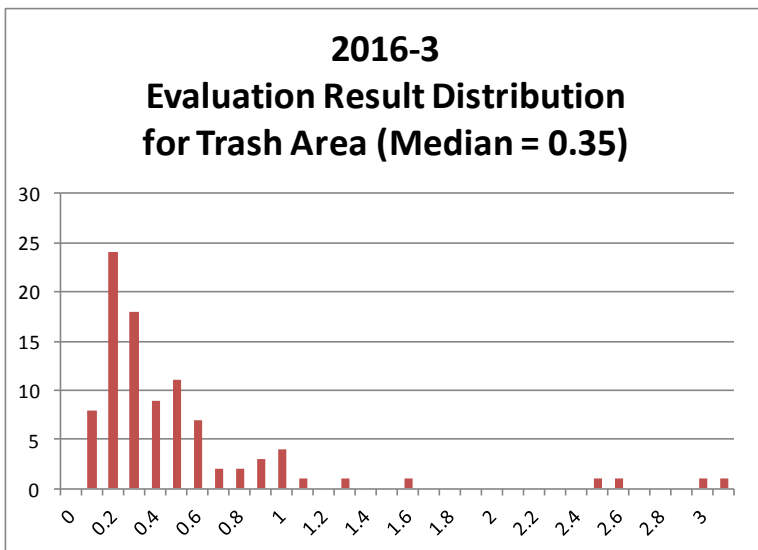
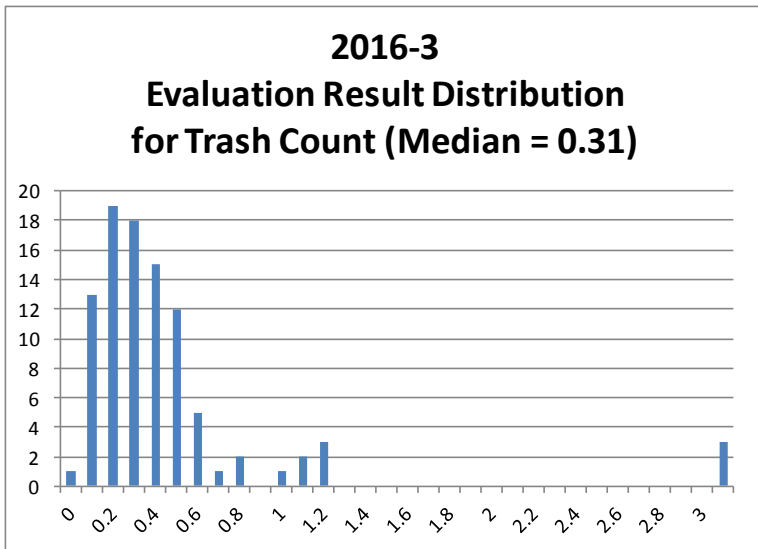
During its last meeting in Bremen in March 2016, the CSITC Task Force decided to take the next step for harmonizing the Trash parameters. From this Round Trial on, the Instrument reports include an Evaluation Grade for Trash Count and Trash Area, too. The results are given on page 3 of the instrument reports (see example in the image below).

Performance of Instrument: GL163-001-01					
		Maturity	SFI	Trash Count	Trash Area
Round Trial Average	Cotton 1	88.22	12.04	17.26	0.201
	Cotton 2	85.55	7.45	16.27	0.147
	Cotton 3	86.85	8.29	11.16	0.120
	Cotton 4	84.95	14.37	26.26	0.272
Instrument Average of All Days	Cotton 1	86.07	12.66	22.27	0.241
	Cotton 2	83.07	7.93	19.60	0.179
	Cotton 3	85.00	8.63	11.70	0.108
	Cotton 4	83.00	16.29	30.37	0.307
Distance to Round Trial Average	Cotton 1	-2.15	0.62	5.00	0.040
	Cotton 2	-2.48	0.48	3.33	0.033
	Cotton 3	-1.85	0.34	0.54	-0.012
	Cotton 4	-1.95	1.92	4.11	0.035
Scale Values	Cotton 1			9.80	0.094
	Cotton 2			9.49	0.079
	Cotton 3			7.92	0.071
	Cotton 4			12.57	0.114
Evaluation by property and sample	Cotton 1			0.51	0.43
	Cotton 2			0.35	0.42
	Cotton 3			0.07	0.17
	Cotton 4			0.33	0.31
Summary Evaluation for Each Property				0.31	0.33
Summary Evaluation for all Properties	These parameters are not included				

With this Evaluation Grade for the Trash Parameters, each laboratory can now see easily, if its Trash results are close to the average of all instruments, or if a higher deviation is given.

With the scale values based on the USDA Reproducibility Limit formula and adapted to CSITC, the Evaluation Grades for Trash Count and Trash Area should be on the same level as the Evaluation Grades for the other properties that you already know. Ideally, the Evaluation Grade would be "0" with no deviation from the inter-instrument average test result, and the higher the Grade, the higher the deviation of the instrument from the inter-instrument average. Our recommendation is to always have a lower=better Evaluation Grade than the median of all instruments (which is typically in a range of 0.3 to 0.4 for each property).

Every laboratory can compare its Evaluation Grades for Trash (in this example 0.31 for Trash Count and 0.33 for Trash Area) to the distribution of Evaluation Grades of all (95) participating instruments, which are given in the images below.



But it is important to understand that still the Trash Evaluation Grades are not included in the Overall Evaluation Grade. Still the Overall Evaluation Grade is solely including these 6 properties:

- Micronaire
- Strength
- Length UHML
- Length Uniformity
- Colour Rd
- Colour +b

The reason is that the Trash measurement is still quite variable in its results, and the CSITC Task Force does currently not want to reduce the significance of the Overall Evaluation Grade by adding the Trash Evaluation Grades.

The Trash Evaluation Grades are hence only given on page 3 of the Instrument Report, but on no other page, in no other document and not included in any other parameter or graph.

For any question, please do not hesitate to contact Axel Drieling or James Knowlton with their addresses given in the e-mail.

Best regards

Axel Drieling and James Knowlton