2016-12-19

RT 2016-4

Instrument Evaluation for Trash

Dear CSITC Round Trial participants,

Since Round Trial 2016-3, the CSITC Round Trial Evaluation includes an evaluation of the Trash properties, and gives an evaluation grade for Trash Area and Trash Count.

The Trash Evaluation Grades are given on page 3 of your Instrument Report (see example in the image below), but on no other page, in no other document and not included in any other parameter or graph.

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

For the other properties (Maturity, Short Fiber Index), your instrument reports include your deviations, but give no evaluation grade.

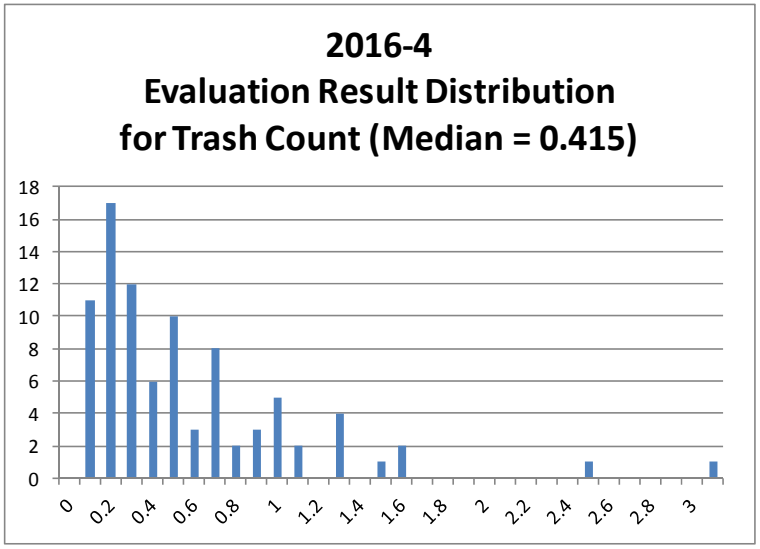
Performance of Instrument: GL164-001-01					
		Maturity	SFI	Trash Count	Trash Area
Round Trial Average	Cotton 1	83.01	11.27	22.13	0.189
	Cotton 2	84.57	7.51	27.70	0.215
	Cotton 3	84.32	12.47	10.73	0.098
	Cotton 4	85.42	12.61	17.81	0.170
Instrument Average of All Days	Cotton 1	83.07	11.77	11.30	0.220
	Cotton 2	85.57	7.74	11.83	0.200
	Cotton 3	85.13	12.89	5.63	0.135
	Cotton 4	84.97	13.33	12.00	0.231
Distance to Round Trial Average	Cotton 1	0.06	0.49	-10.83	0.031
	Cotton 2	1.00	0.23	-15.87	-0.015
	Cotton 3	0.81	0.42	-5.09	0.037
	Cotton 4	-0.45	0.72	-5.81	0.061
Scale Values	Cotton 1			11.30	0.090
	Cotton 2			13.01	0.098
	Cotton 3			7.78	0.065
	Cotton 4			9.97	0.085
Evaluation by property and sample	Cotton 1			0.96	0.35
	Cotton 2			1.22	0.15
	Cotton 3			0.65	0.57
	Cotton 4			0.58	0.72
Summary Evaluation for Each Property				0.85	0.45
Summary Evaluation for all Properties	These parameters are not included				

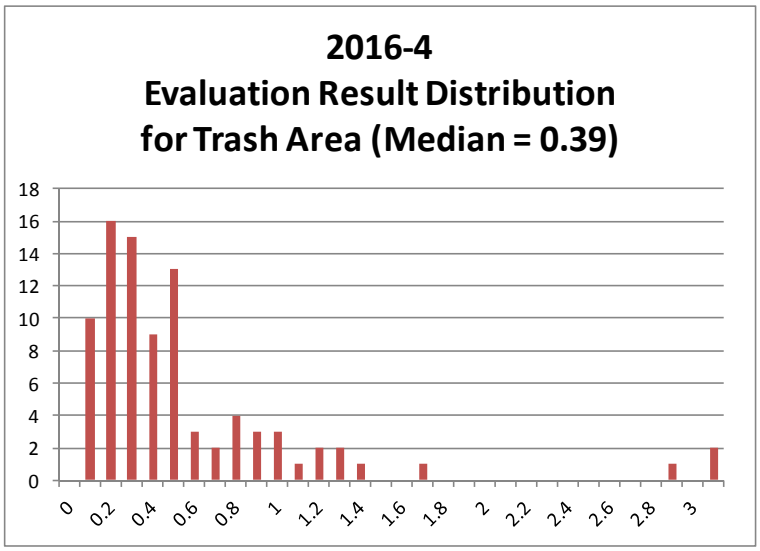
With this Evaluation Grade for the Trash Parameters, each laboratory can now see easily, if its Trash results are close to the average of all instruments, or if a higher deviation is given.

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 the example in image 1 0.85 for Trash Count and 0.45 for Trash Area) to the distribution of Evaluation Grades of all (88) participating instruments, which are given in the images below. The Median Evaluations in Round Trial 2016-4 are:

- Trash Count: 0.415
- Trash Area: 0.39





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