

**Round Test on
stickiness characterization methods**

Test: 2022-1

FINAL SHORT REPORT

**Stickiness Task Force of the 'International
Committee on Cotton Testing Methods' (ICCTM)
of the 'International Textile Manufacturers
Federation' (ITMF)**

date: June 27, 2022

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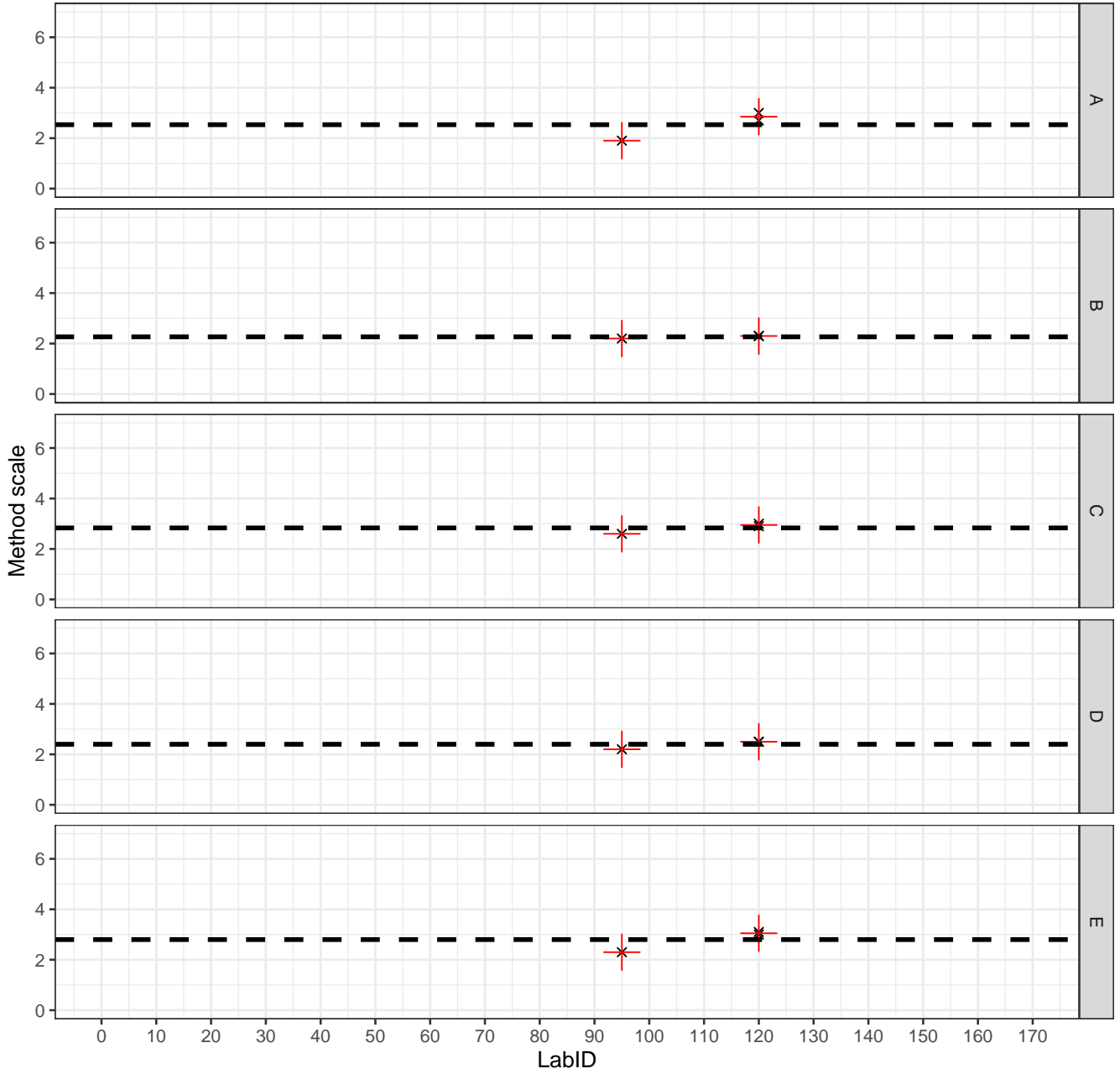
Kouakou Brou Julien ^(Observer, 4)

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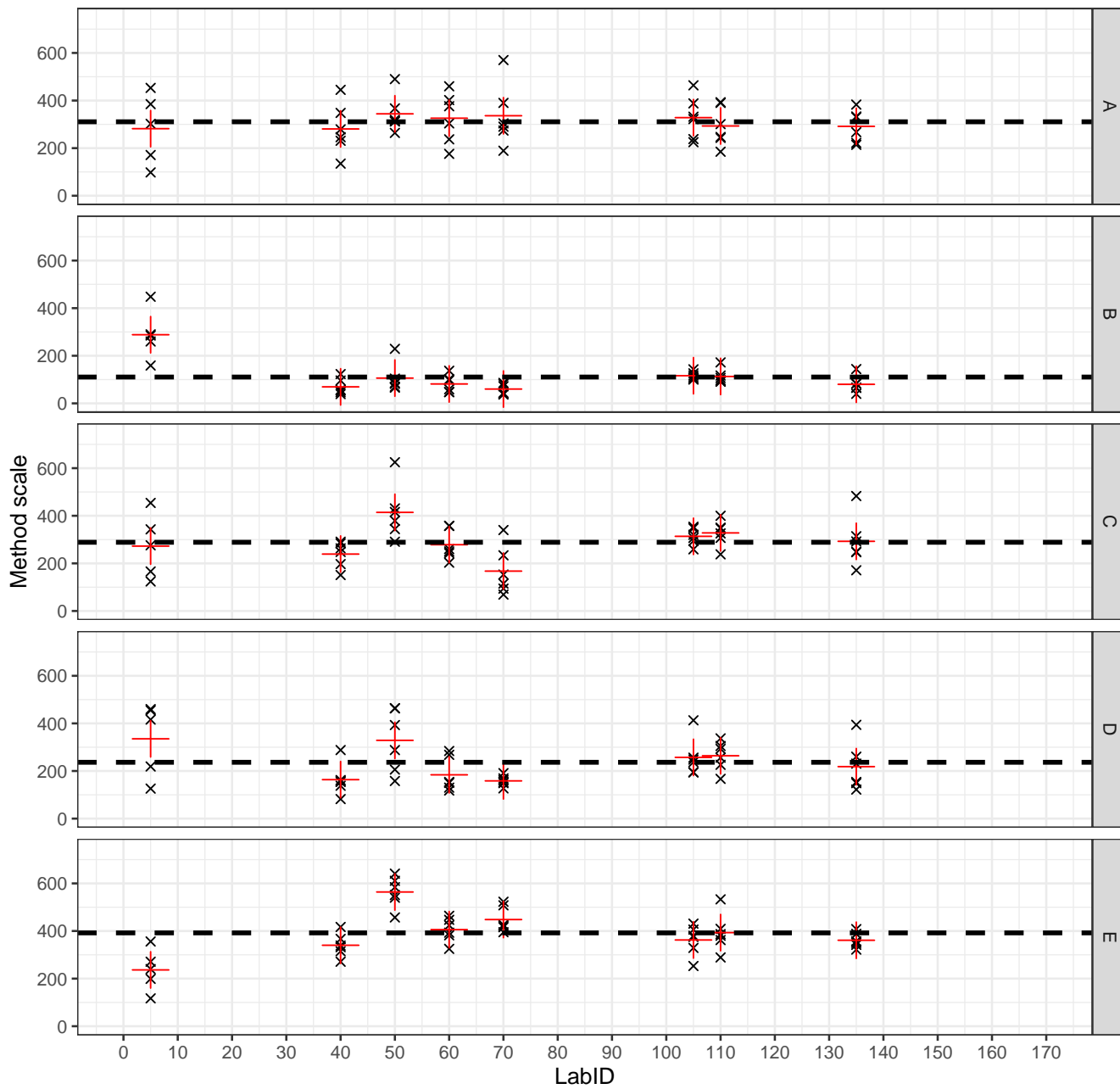
Short report information about the following charts:

- NA excluded
- LabID are given in the abscissa axis at the bottom of the chart in the following charts.
- Black dashed line = Method Grand Mean per cotton (A, B, C,...)
- Red + = Laboratory mean for the given method and for the given cotton.
- Black x = Laboratory individual reading for the given method and for the given cotton.

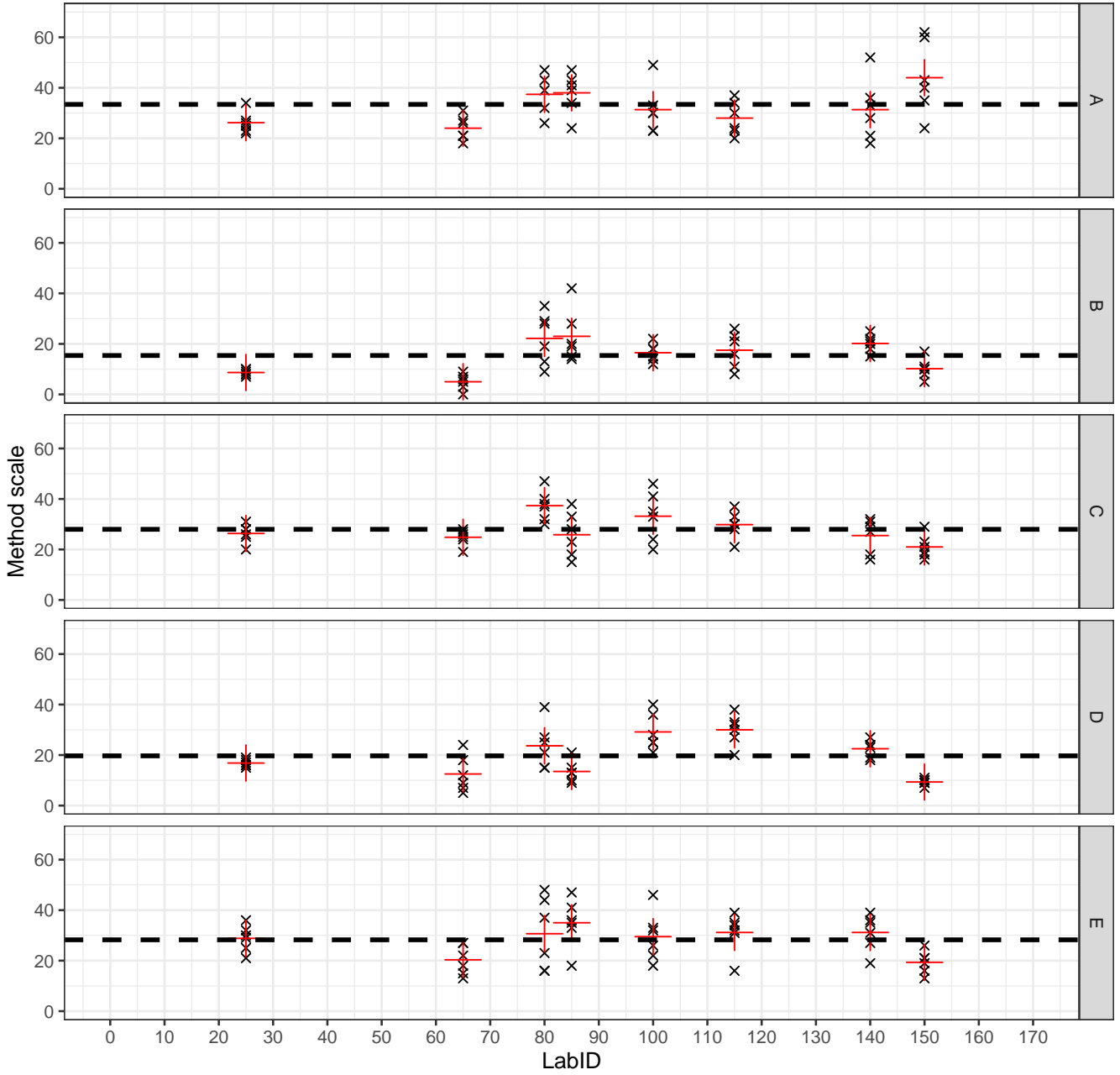
Individual readings per LabID with Method = Caramelization



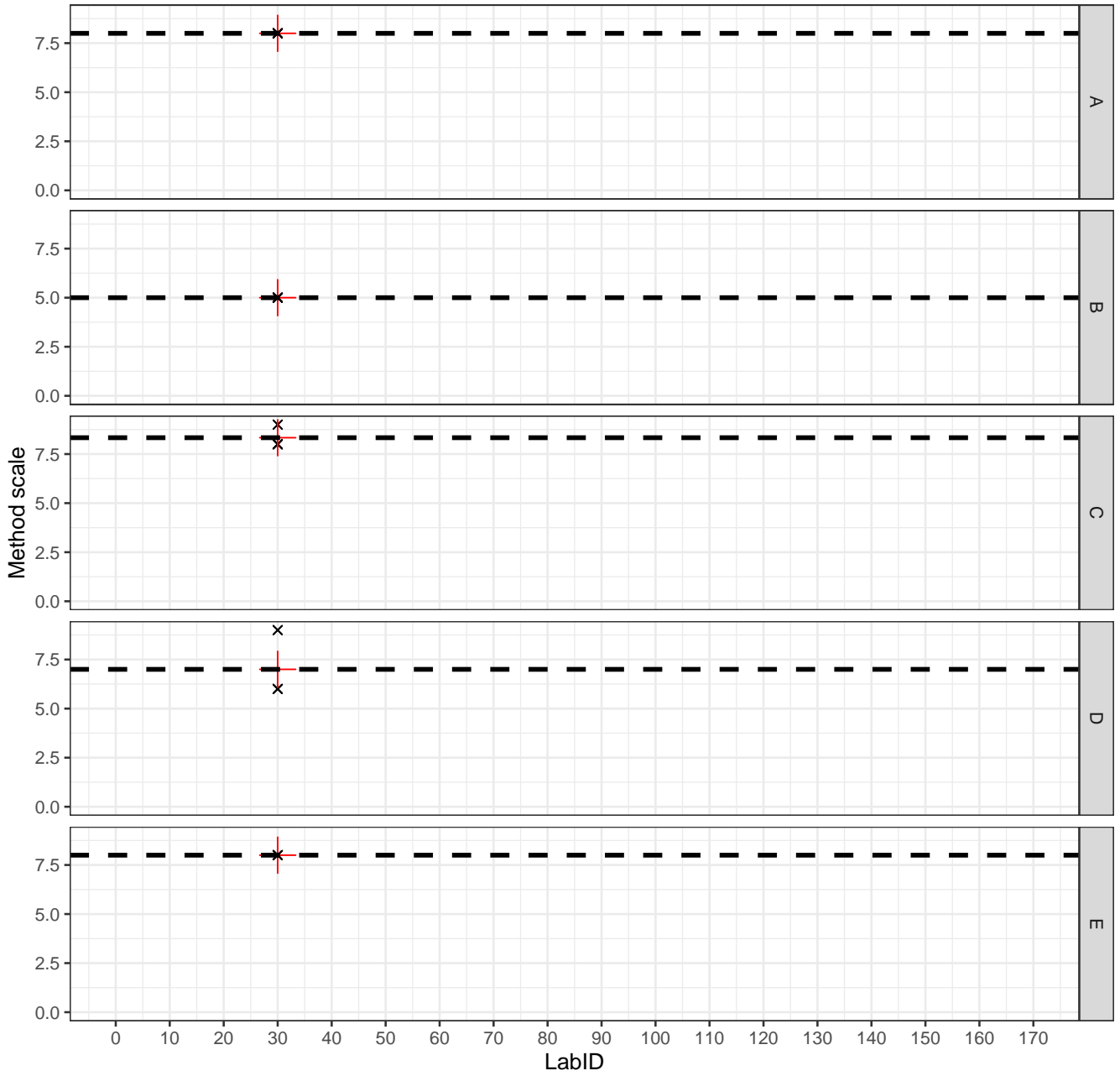
Individual readings per LabID with Method = Contest-S



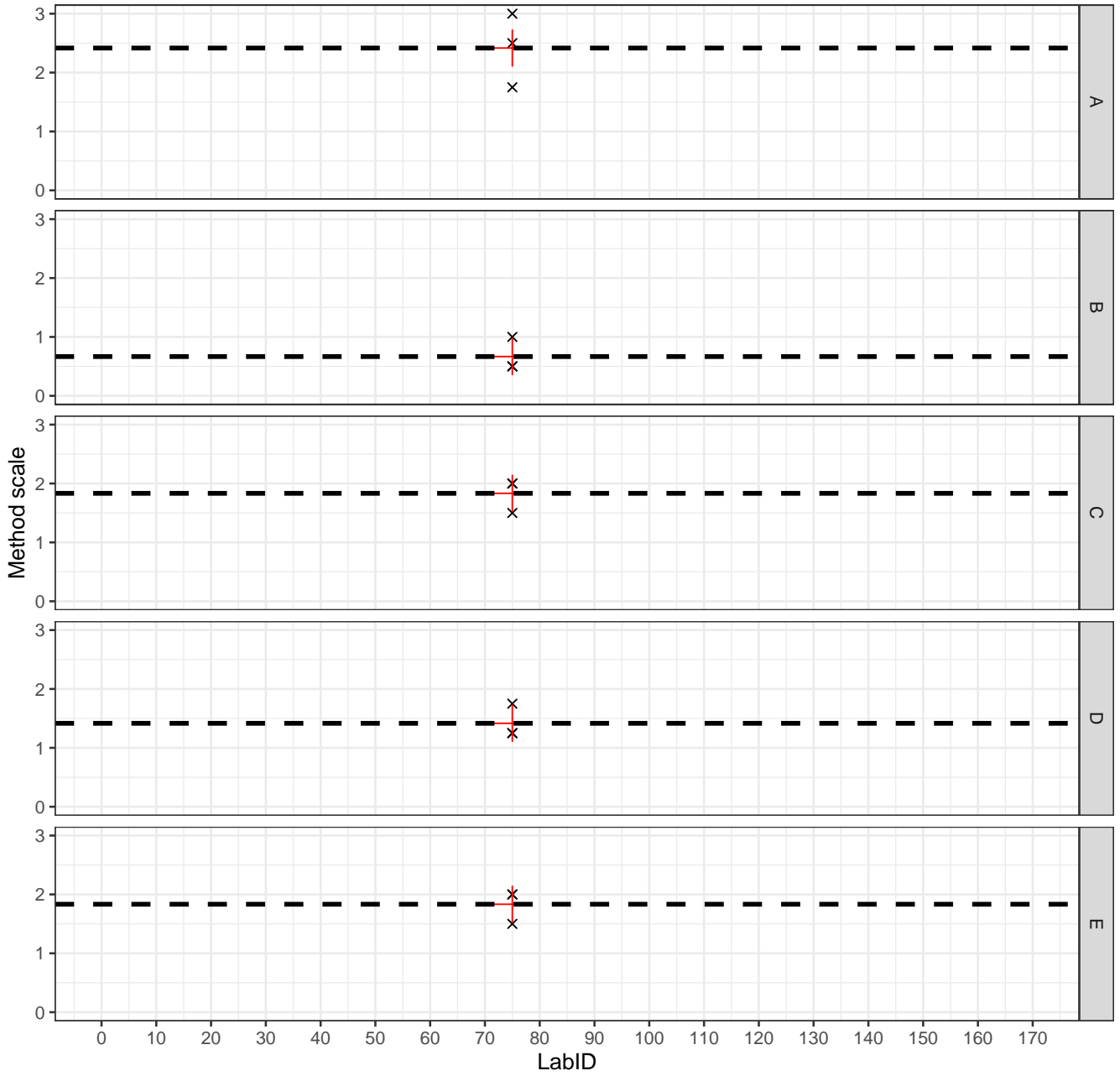
Individual readings per LabID with Method = H2SD



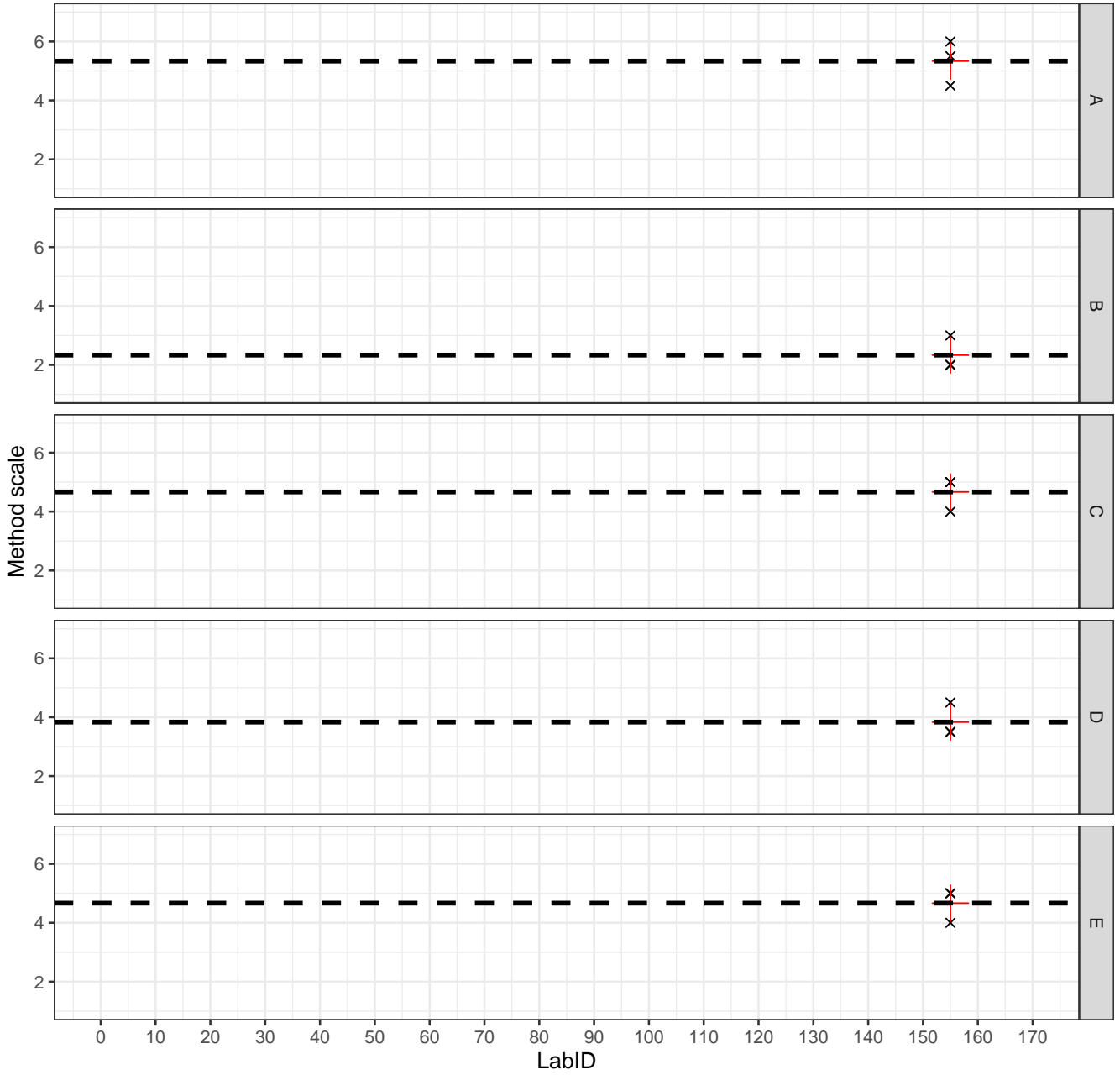
Individual readings per LabID with Method = KOTITI



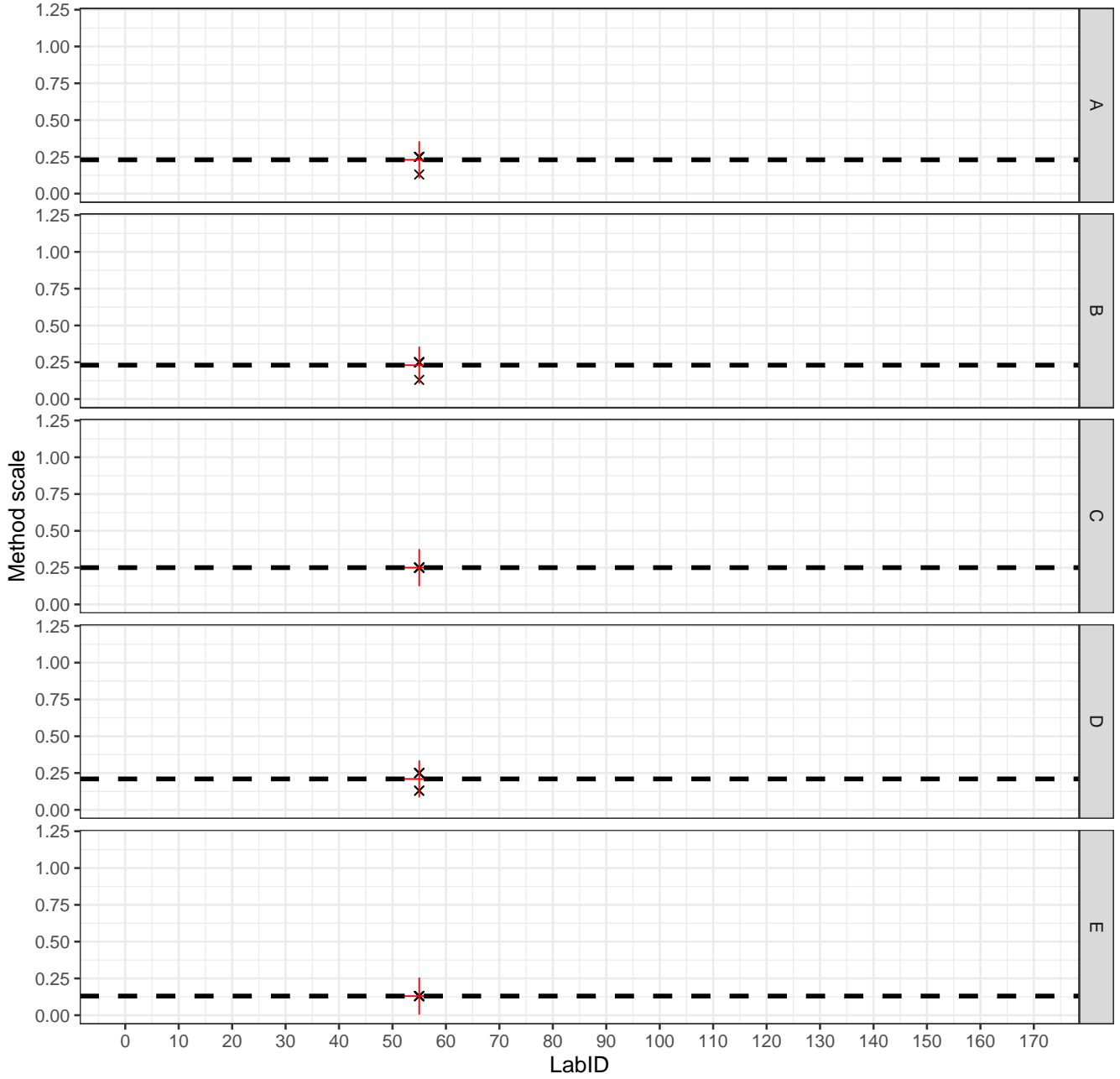
Individual readings per LabID with Method = Minicard



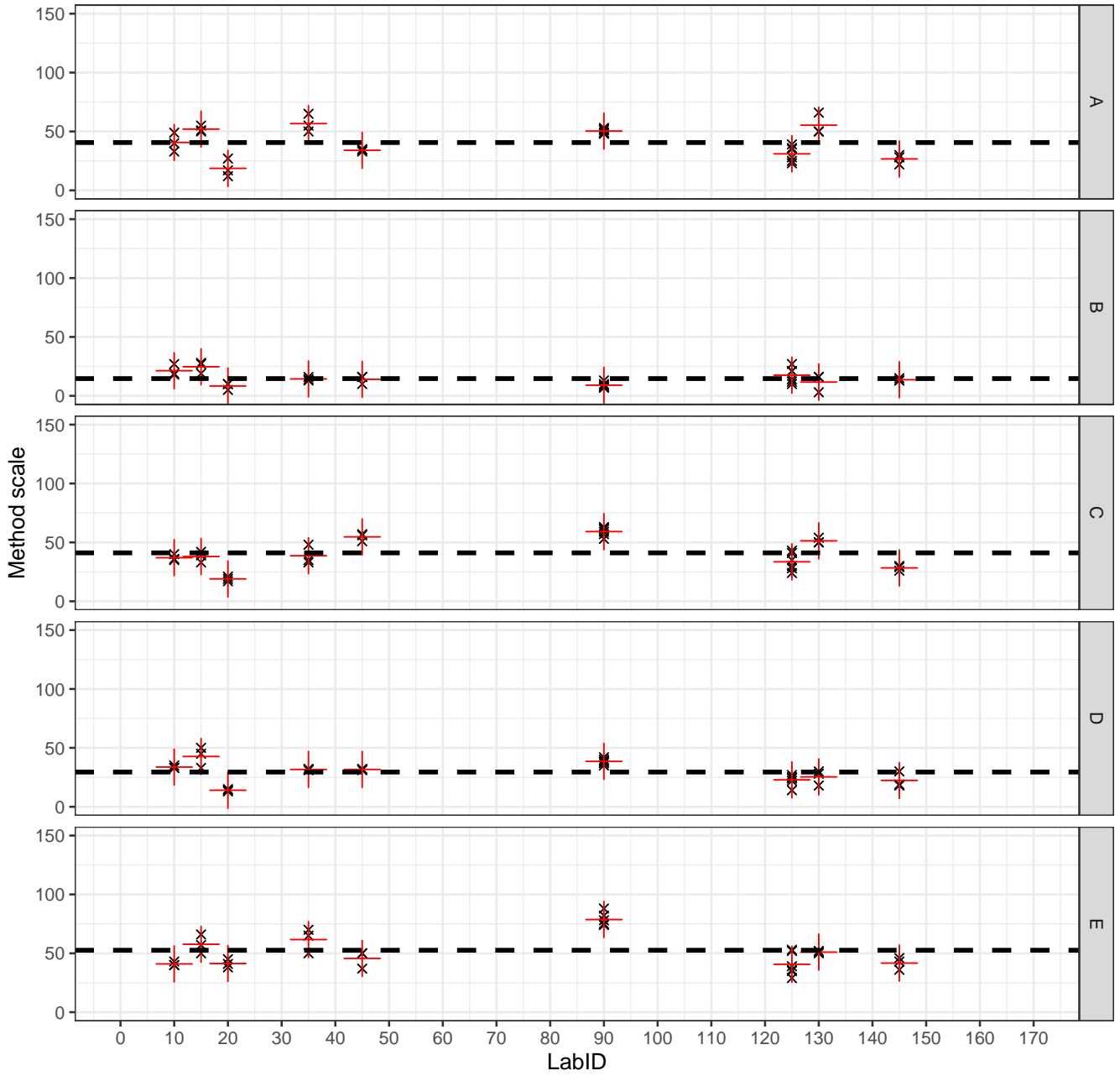
Individual readings per LabID with Method = MinicardC



Individual readings per LabID with Method = Quantitative method



Individual readings per LabID with Method = SCT



General conclusions about the results of this round-test

At this point, some general conclusions can be drawn from the results of this round-test:

- Eight methods (one with two scales; in past RTS, up to 11 methods were participating) for measuring stickiness were used. Please see our conclusions in Bremen Conferences (see below), for trying to make according decision for labs's future testing instrumentation and procedures.
- Thirty three instruments participated to this test. On our side, we were not able to deliver samples to some laboratories due to restrictions by carriers. This report is the only official one for ever.
- Maybe following the March 2021 meeting in Bremen, three methods are now counting a good participation (Contest-S (8), H2SD (8) and SCT (10)), while some methods now tend to disappear from this RT. Maybe also it is because participants had a look on past reports and Bremen ITMF-ICCTM presentations and saw our effort in the harmonization process focusing on thermo-mechanical methods mainly (see below).
- Levels of reading as well as units to express stickiness remain quite different, confirming that maybe all methods are not exactly measuring the same property that all methods however name 'stickiness' by all methods. This could be a problem for the comparability of the measurements and the application of the results in processing.
- Variations in results are still quite high between laboratories using the same method, inducing somewhat low levels of reproducibility in the measurements.
- It seems that this variation slightly reduced recently, but we need to find a criteria to measure it properly; please see last comment below;
- If one would compare methods, it would require calculating a representative result for each of the used methods; however taking care of the observed large variability levels in the results - both within laboratory and between laboratories - a mean result or a median result per method would not be meaningful at this stage. When these levels of variability will decrease, such a comparison will be published for each round-test occurrence.
- As discussed in Bremen (March 2018), since RT 2018-1, a new chapter appeared in the full report about the CommonScale approach as a first attempt of harmonization within and between methods (the later, at the condition that all methods do measure stickiness which will have to be proven according to a procedure to be developed).
- As discussed in Bremen (March 2021), harmonization steps will concentrate on thermo-mechanic methods and keeping the minicard as ITMF-ICCTM reference. More information will be disseminated on the harmonization steps in the future.
- To see the presentation that was made about this round-test in Bremen in March 2021, based on all acquired results since 2017, please visit: https://baumwollboerse.de/wp-content/uploads/2021/06/CCB_2021-T5-Gourlot-Drieling.pdf and/or <https://www.itmf.org/images/dl/reports/icctm-reports/ICCTM-Report-2021.pdf>
- As we assume that by showing their relative position of each laboratory on comparison with others will

induce corrective actions to favor more harmonized results along time, we will run other occurrences of this stickiness round-test in the coming times.

We recommend laboratories to observe their position and deduce the potential corrective actions that will lead to more grouped results in the coming round-test occurrences.

We stay available to all laboratories participating to this RT for providing any piece of information of their interest. Please note that preparing and dispatching samples has a cost and therefore we urge laboratories receiving samples to submit their results in due time.

In the same time, if you would have several kilograms of homogeneous material having a typical sticky behavior, and that you would like this cotton to participate in one or several future round-test occurrence(s), please contact Jean-Paul GURLLOT. Every thing will remain confidential at any time.

Finally, next round-test samples will be sent in a close future. Messages will be sent to the mailbox of participating laboratories contacts. **If you know other laboratories who wish to participate, please ask them to contact us...** Thanks for the cotton community.

We stay at disposal for any additional discussion; we do hope to see you again during the coming next RT later within the coming months.

Thank you again for your participation and support.