

**Round Test on
stickiness characterization methods**

Test: 2020-2

FINAL SHORT REPORT

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

date: December 17, 2020

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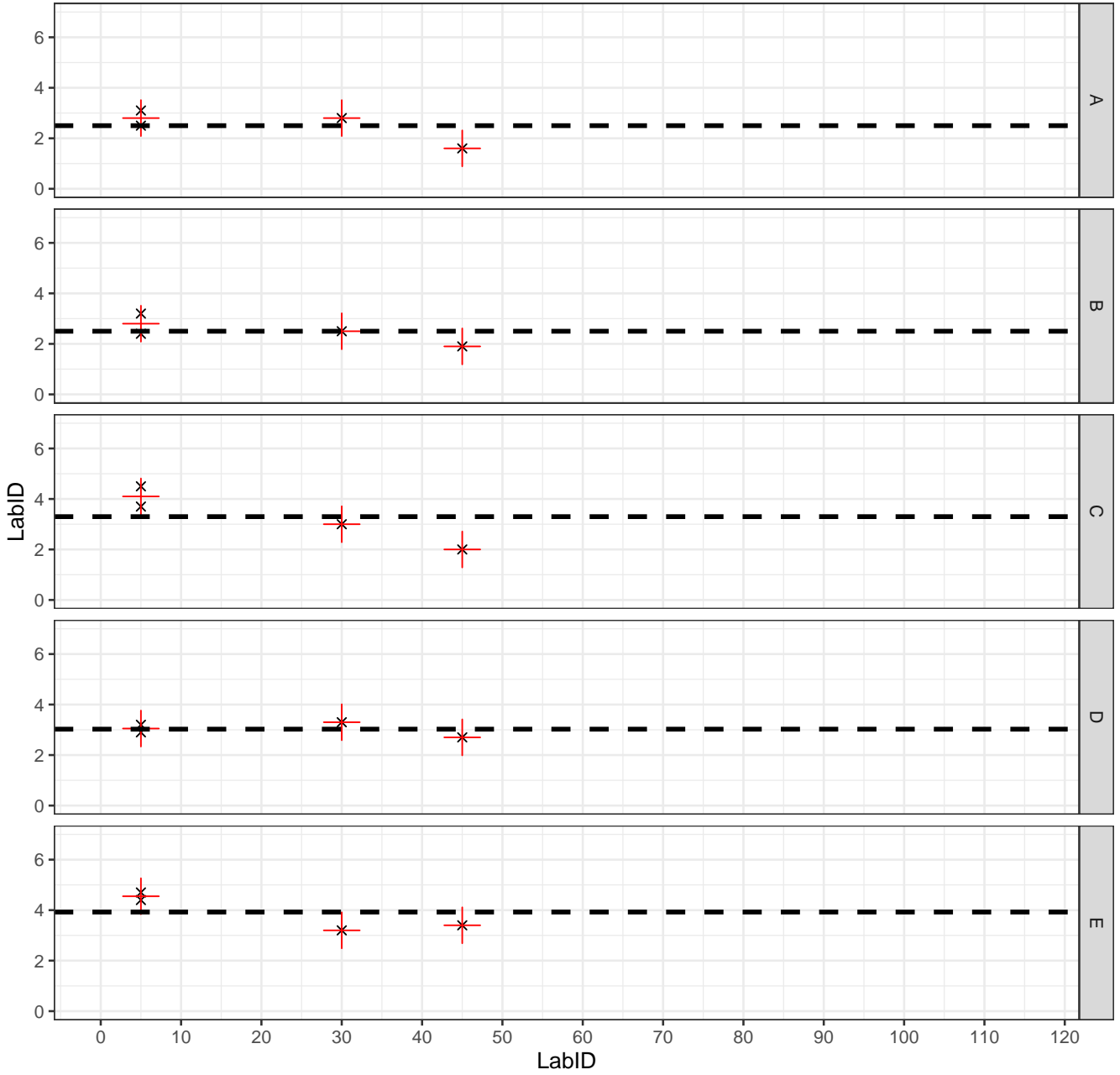
Lassus Serge ⁽¹⁾

⁽¹⁾ CIRAD, France, ⁽²⁾ FIBRE, Germany, and ⁽³⁾ ICA Bremen, Germany

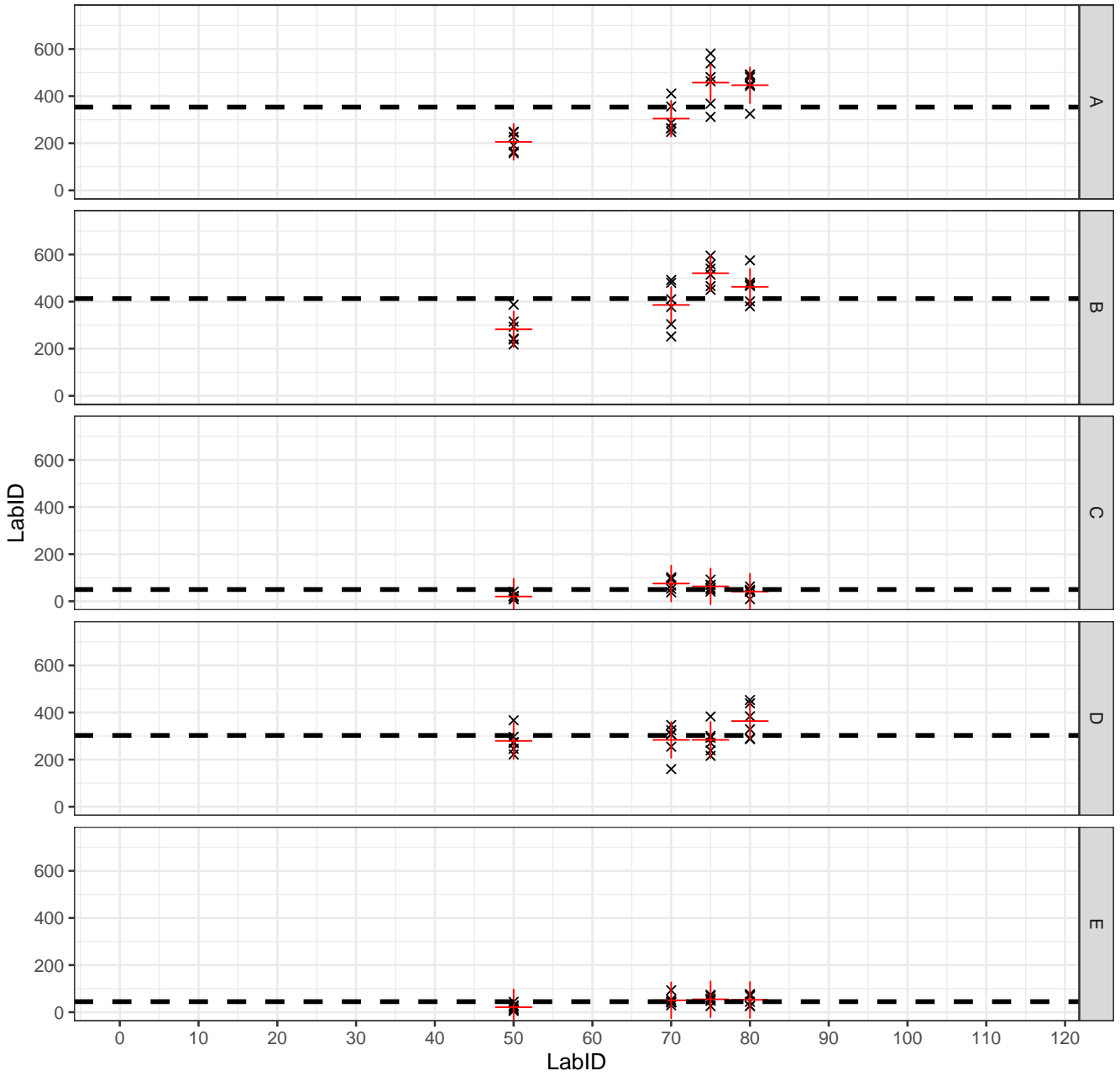
Short report information about the following charts:

- 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.

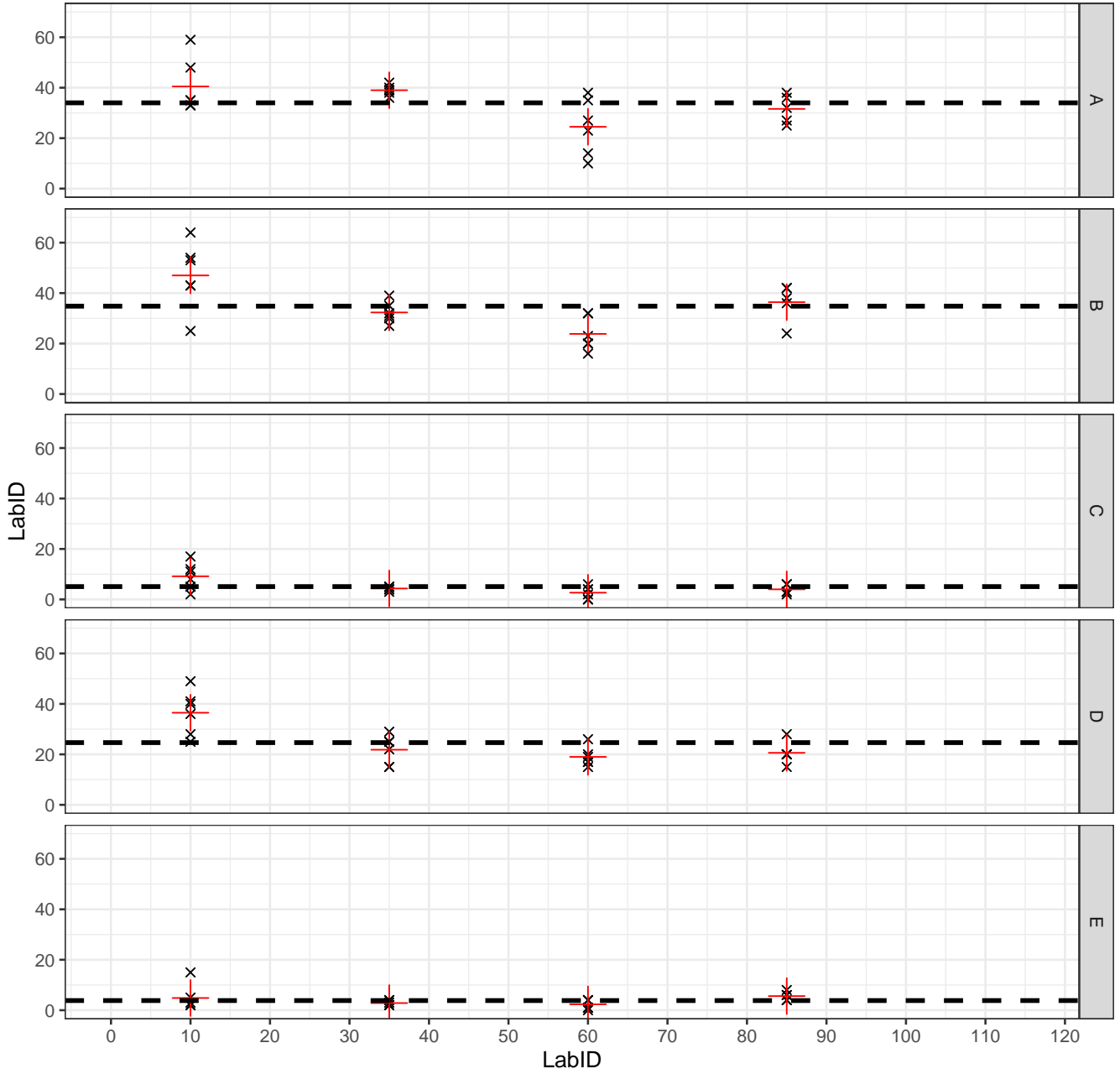
Individual readings per LabID with Method = Caramelization



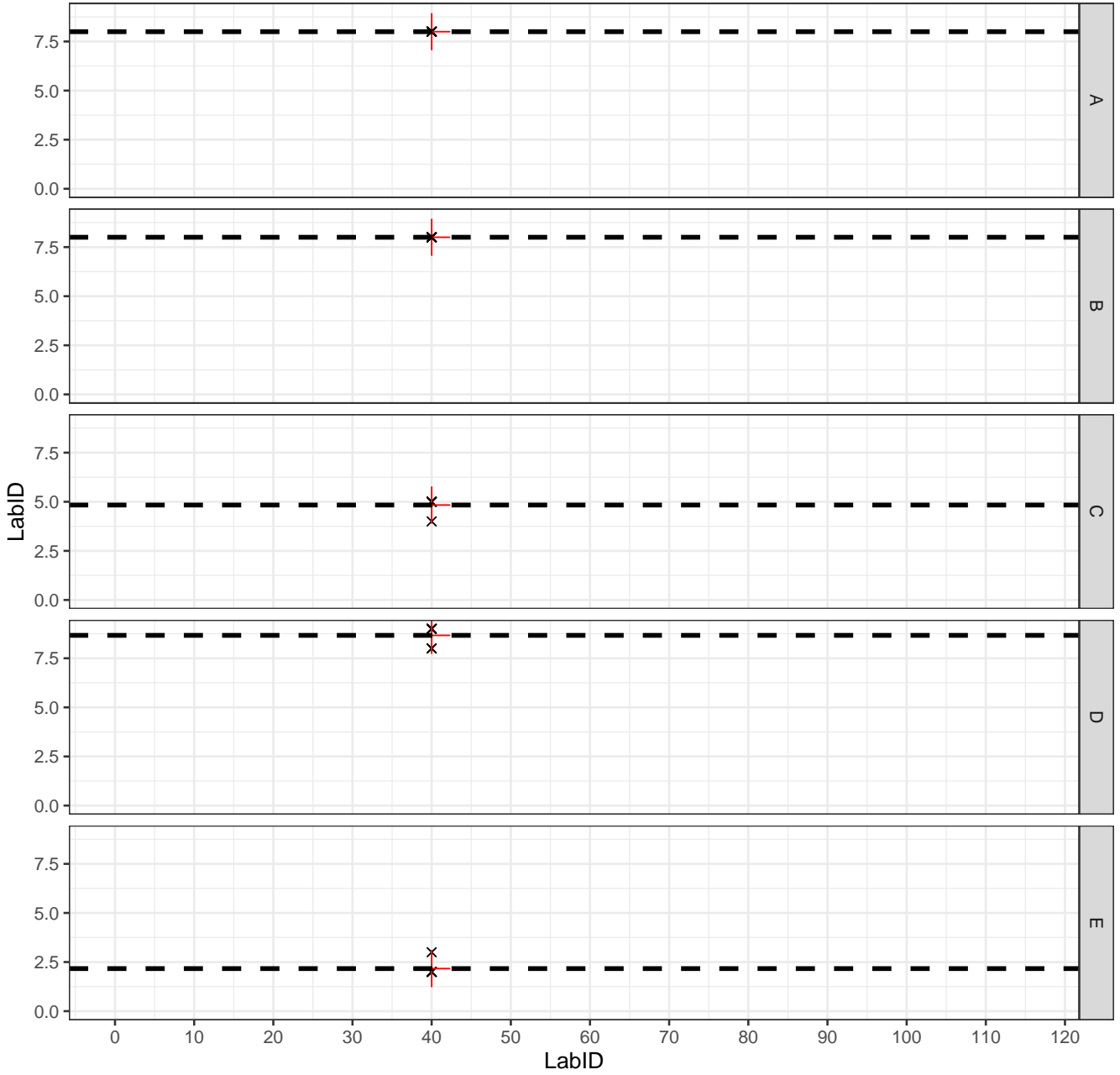
Individual readings per LabID with Method = Contest-S



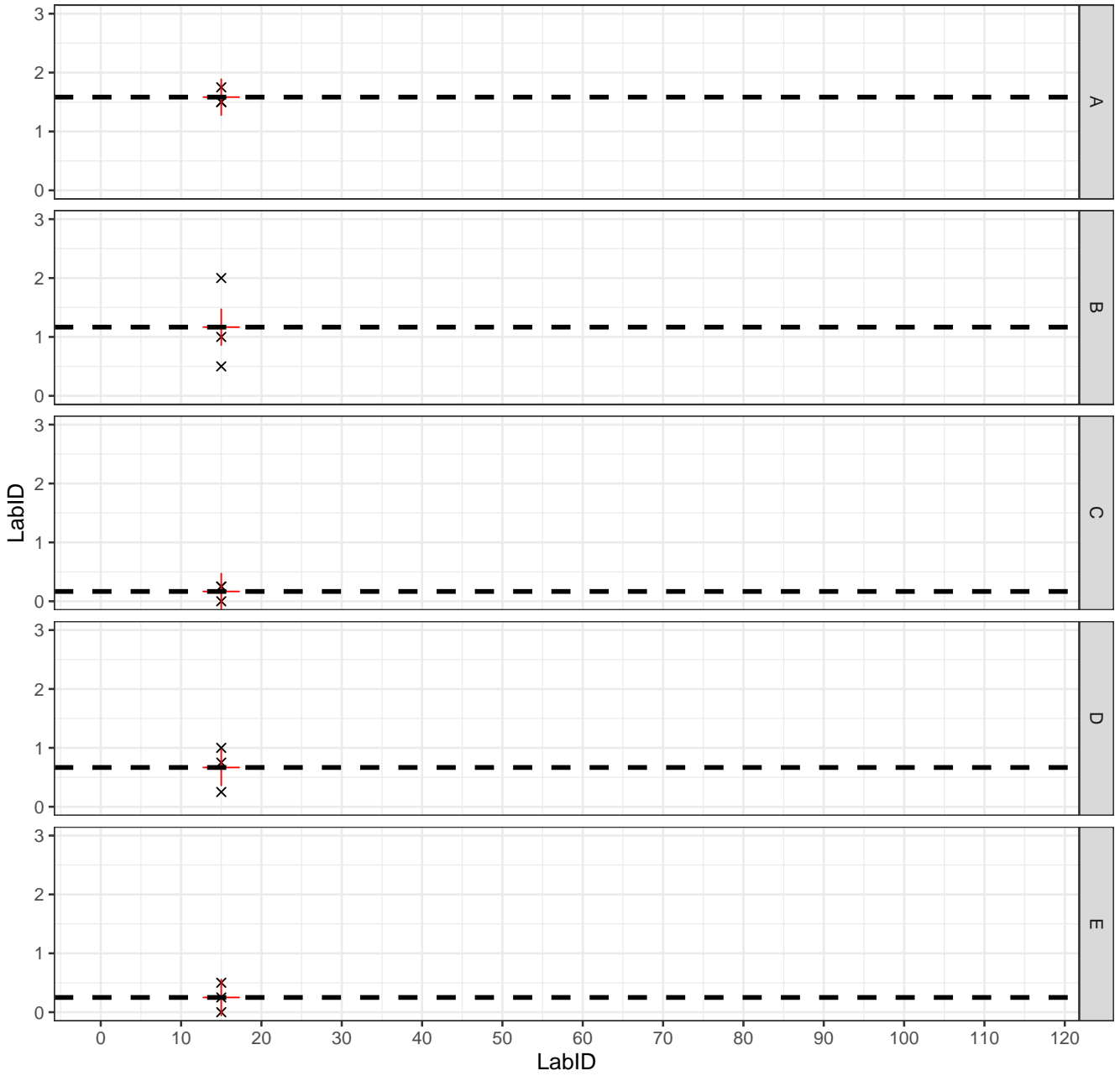
Individual readings per LabID with Method = H2SD



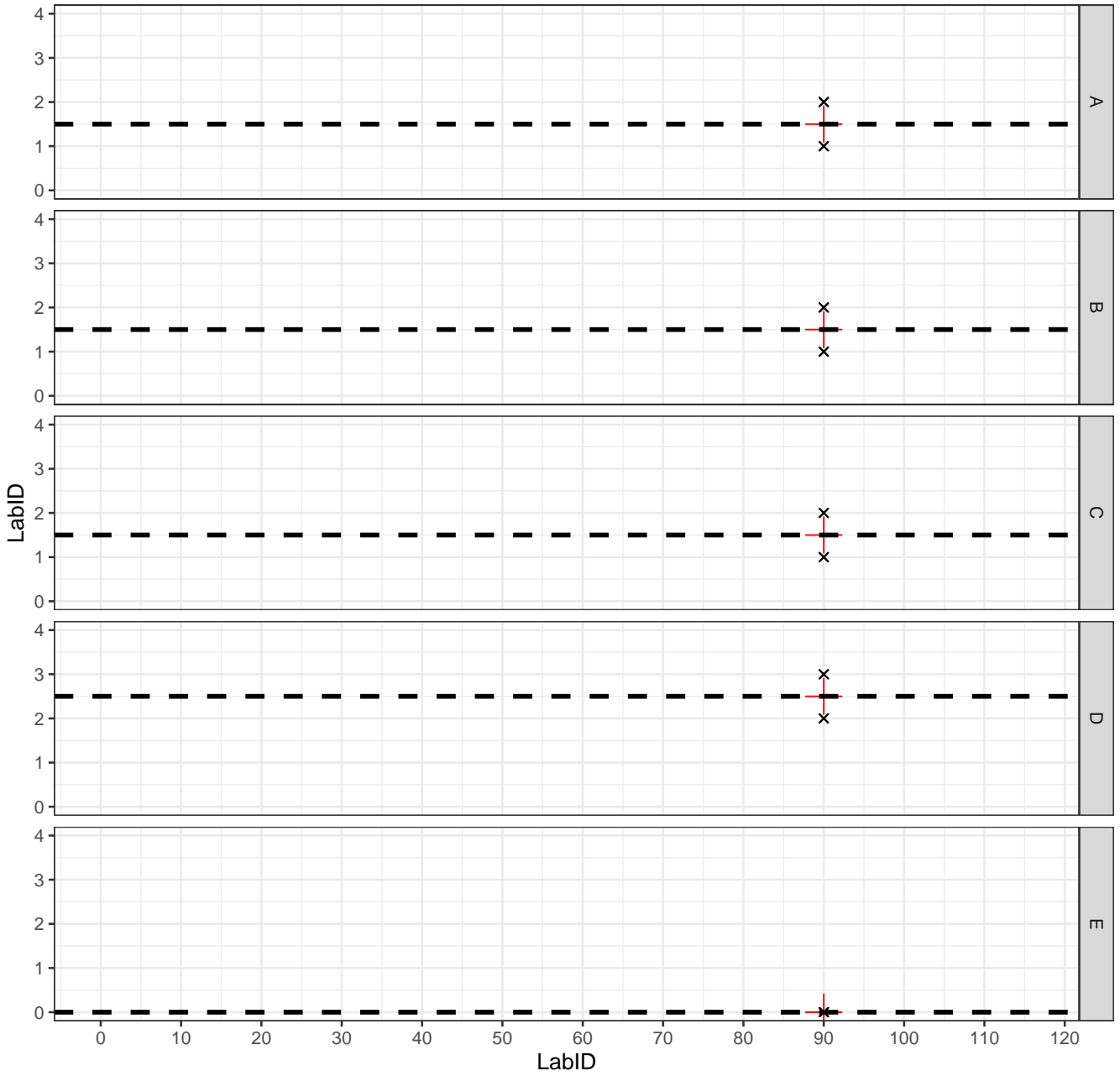
Individual readings per LabID with Method = KOTITI



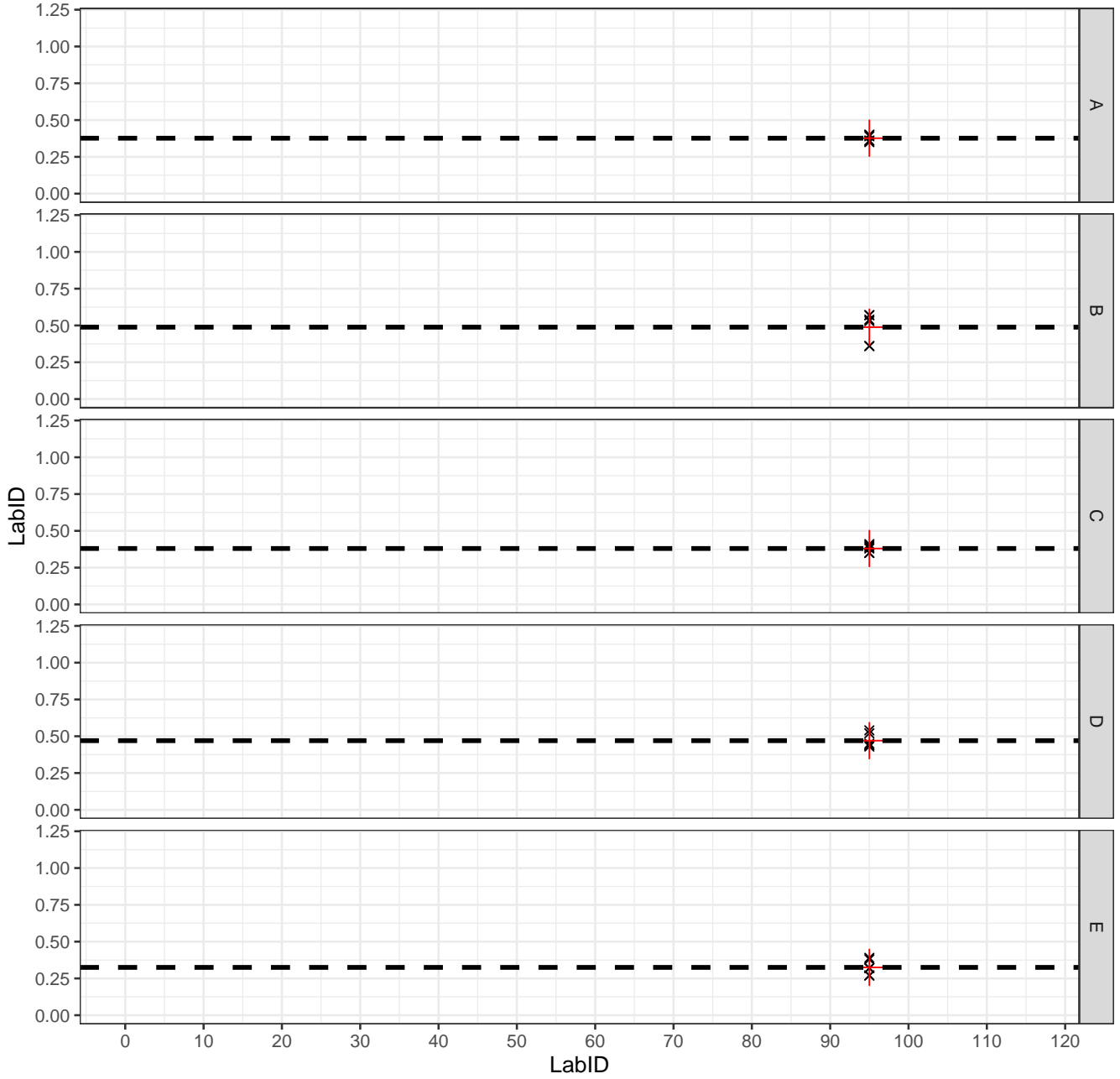
Individual readings per LabID with Method = Minicard



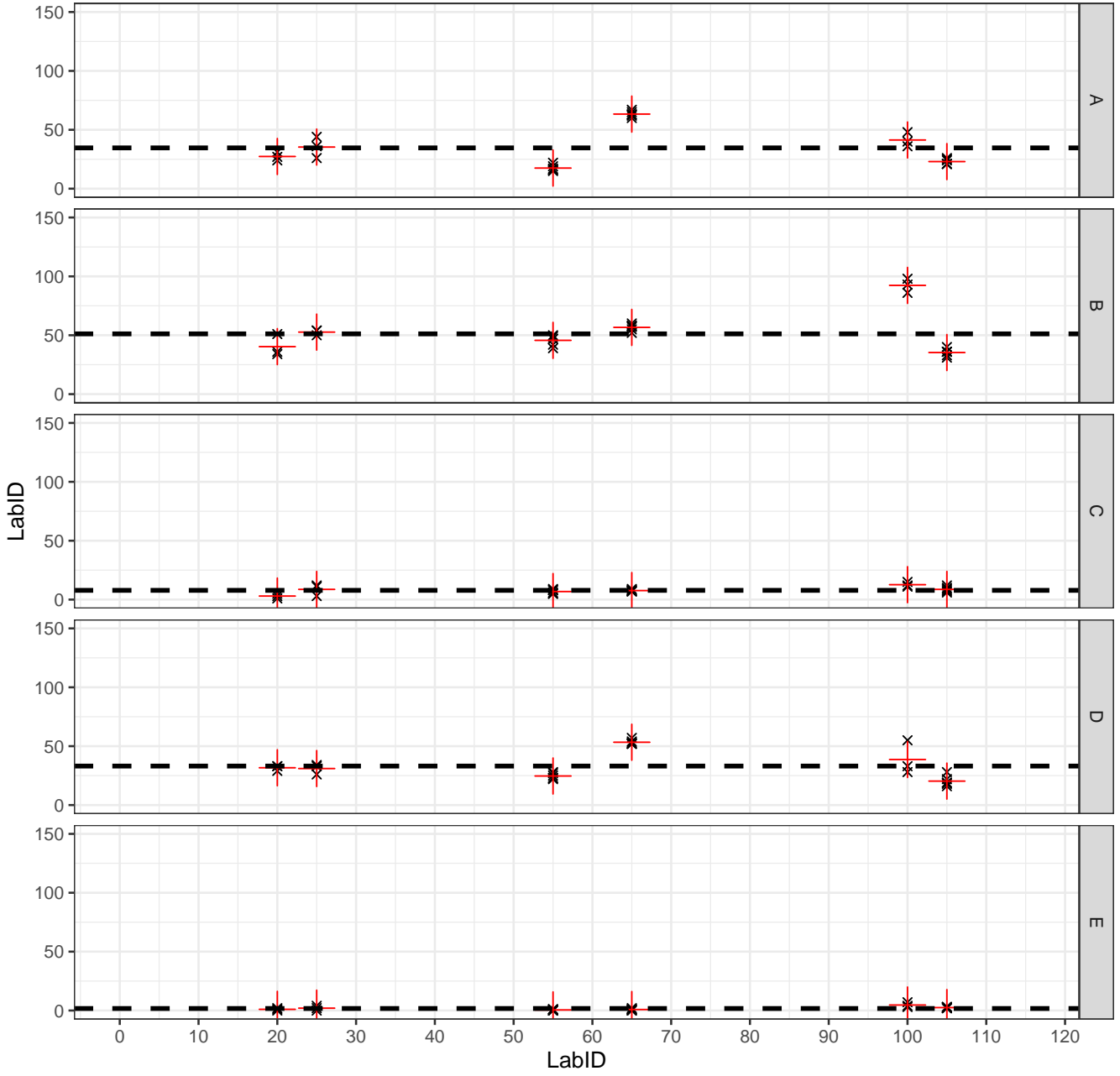
Individual readings per LabID with Method = Qualitative method



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 (in past RTS, up to 11 methods were participating) for measuring stickiness were used;
- Only twenty one instruments participated to this test; maybe the current pandemic is the reason for this low participation. On our side, we were not able to deliver samples to some laboratories due to restrictions by carriers.
- Levels of reading as well as units to express stickiness are 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 quite high between laboratories using the same method, inducing somewhat low levels of reproducibility in the measurements;
- This variation seems not evolving since RT2017-1; 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 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.**

Finally, next round-test samples will be sent in the future for the test 2021-1. Messages will be sent to the mailbox of participating laboratories contacts.

We will keep contact with all laboratories participating to RT2019-2 as long as possible during the pandemic. However, preparing and dispatching samples has a cost and we urge laboratories receiving samples to submit their results in due time.

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.