



Annex 6: Instructions to Authors. Preparation of Validation Reports For New Test Methods or Revision to Existing Test Methods.

6.1. The Validation Report:

- a) Should be a self-contained document suitable for publication in ISTA Method Validation Reports.
- b) Should follow the general style requirements of Seed Science and Technology (see instructions to authors in a recent edition of SST or on the ISTA Online web site). However it is understood that data sets may, when required, be attached as Appendices.
- c) Should clearly state the proposed new method or revisions that have been validated.
- d) Should present justifications for the new method or revisions based on the results of scientific studies contained in the report itself.

6.2. The report should normally contain the following sections:

a) In all cases:

- i. Title – which should begin: _____ Committee Technical report: Validation of a revised/new method for
- ii. Authors – names and addresses of authors.
- iii. Summary – a short summary of the study and the validated method.
- iv. Introduction – stating the problem, reasons for the study, the purpose of the method, pertinent background information and history of the method with reference to previously published information and if appropriate the objective(s) of the collaborative study(ies).

b) If reporting the results of scientific studies directly:

- i. Materials and methods – full details of the materials and methods used and design of the study, including the method(s) of statistical analysis.
- ii. Results – of the study, statistical analysis and summaries of the data in the form of tables and/or figures, presented in sufficient detail and with appropriate measures of variation to allow the reader to draw independent conclusions. If appropriate, justifications for exclusion of raw data.
- iii. Discussion – discussion of the method performance including comments from collaborators and how they were addressed.

c) If referring to scientific studies published elsewhere:

- i. Summaries and discussion of the external studies – results of external studies which have been published elsewhere should be summarised/reviewed and discussed in terms of method performance.

d) In all cases:

- i. Proposed changes and justification – if appropriate clearly identify proposed changes to an existing method with justification.
- ii. Test results of repeatability and reproducibility – give estimates of the repeatability and reproducibility of the test method and how these were calculated.
- iii. Levels of uncertainty for the method – provide uncertainty estimates (tolerance table data for many methods) and how these were calculated.
- iv. Conclusions and recommendations – a clear statement of the conclusions of the validation and recommendations for actions.
- v. Acknowledgements – of collaborators (if not co-authors), funding bodies, etc. as appropriate.
- vi. References – details of all cited references.

6.3. Validation Reports which are not presented in the correct format and/or which do not fulfil these requirements will be returned for revision.

6.4. Raw data

A hard copy and electronic copy (spreadsheet; database) of the raw data should be deposited with the ISTA Secretariat. To maintain confidentiality, the identity of individual participating laboratories should be indicated by a coded identifier.

6.5. Copyright

Submission of a report implies that the work described has not been published elsewhere, except in the form of a poster, an abstract or a thesis, that it is not under consideration for publication elsewhere, and that all co-authors have approved the report. The International Seed Testing Association will retain the copyright of the method and the report.

Value:

Accepted Reference Value:

'A value that serves as an agreed-upon reference for comparison and which is derived as:

- a) a theoretical or established value, based on scientific principles;
- b) an assigned or certified value, based on experimental work of some national or international organisation;
- c) a consensus or certified value, based on collaborative experimental work under the auspices of a scientific or engineering group;
- d) when a), b), and c) are not available, the experimentation of the (measurable) quantity, i.e. the mean of a specified population of measurements.' [ISO 3534-1].

True Value:

'Value consistent with the definition of a given particular quantity.'

Note: This is a value that would be obtained by a perfect measurement. True values are by nature indeterminate. The indefinite article a rather than the definite article the is used in conjunction with true value because there may be many values consistent with the definition of a particular quantity. [VIM 1993].

Verification:

'Confirmation by examination and provision of objective evidence that specified requirements have been fulfilled.' [ISO 8402:1994].

'Confirmation, through provision of objective evidence, that specified requirements have been fulfilled.' [ISO 9000:2000].