

Report Writing: Practical Reports for Level 7

School of Wine and Viticulture

The following points on the preparation of practical reports are intended as a guide. This mirrors a research report that might be published in a scientific journal. There may be a few variations depending on the particular journal. An extract detailing “Instructions to Authors” for a selected journal will also be given for a comparison.

Date: (equivalent to date of publication)

Title: All reports must have a title, presented clearly and to the point and identifying this unique piece of work.

Authors: List the authors of the work. And list their associations, i.e., who they represent.

Abstract: A summary of the main findings of the work in less than 100 words. (Word limit varies with different journals).

Introduction

The introduction will be a summary of the background and reasons for doing such a study. It should introduce the study, discuss importance and current relevance and identify key issues. This should include relevant material from textbooks and journals and other resources (these will need to be cited and referenced correctly). In addition, a short statement of project aims should be presented.

Materials and Methods

Describe the experimental work in past tense: what was done, and what materials and equipment (including make and model of specialised equipment) were used. There is no need to detail basic methods. For example, state that a pour plate technique was used but do not detail every step of a pour-plate technique.

Results

This is where you report the information showing what occurred in the experiments. These results are based upon the data obtained, as previously noted in your laboratory records. Careful collection and compilation of such data are obviously required. The results section will draw your readers’ attention to the salient features of your laboratory observations. You will use diagrams, charts, tables, and graphs to

do so. Do not leave these tables and figures to “stand-alone”, but use constructive, short and to-the-point sentences to introduce them.

In some cases, raw results may be added as an appendix and calculated or transformed results are presented in the results section. The appendix must be referred to in this case (NB: An appendix is not used in a research report in a journal).

Tables should be neat, numbered and titled. The title should be above the table, with any key below. They may require some re-listing of your raw or transformed data. They should be intelligible, without too much reference to the text. The units of variables should be quoted and numerical data rounded off, where appropriate.

Figures should be neat, numbered and titled. The title can come above or below the figure, depending on your preference, but you must be consistent. Illustrations (e.g., drawings of bacteria under the microscope; appearance of colonies on plates) should be simple line drawings. A scale for size should be given.

For graphs, axes should be labelled, both as to what they represent and the units used. A legend should be included if required. There are many ways to link up data points on a graph. The choice between drawing the best line and “joining the dots” will often depend on the amount of data available. There are no hard and fast rules. However, you should try to indicate the confidence you have in each data point, and thus the net results. Do not extrapolate without indicating that you have done so

Calculations: If you have performed any calculations on the results to yield calculated results, give an example of a detailed calculation in this section or in the appendix, where it may be referred to.

Discussion

The discussion section should incorporate your laboratory findings (results) into the body of existing knowledge. To write the discussion you will need to be familiar with the area (through other reading) so you will know if your results conform to, refute, or extend the existing body of knowledge. You should be citing references which aid you in making these points. Analyse your own study critically. You should avoid repetition of material in the results section, unless you wish to make a particular point. Rather, you should concentrate on the importance of your findings in the context of the subject. You should

consider the questions given in the practical in your report, which should also lead you to consider the implications and applications of the results.

In some journals results and discussion may be written together.

Conclusion

The purpose of your conclusion is to relate your laboratory findings back to the aims of the study. It should make two to three main points but be concise. This should not be a discussion or a repetition of the results or discussion section, except for the main findings. No new material should be introduced here. This may also be extended to include recommendations either as a separate section or extending from the conclusion.

Acknowledgements

If anyone or any company has helped you with this study, you should acknowledge their contribution.

References

If you have used any written material (e.g., texts, journals) for writing your report, this should be correctly cited in the body of the report and referenced in an appropriate form here. There are a number of referencing styles available. Be consistent within your style chosen and use an accepted style that is used in science based resources.

Appendices

The appendices may include support material not included in the main body of the report, for example, illustrations, brochures, sets of data. This material should not be required to fully understand the report, i.e., the report should be able to stand alone. A journal article does not include appendices.

Final Notes

- It is important to submit reports on due dates.
- Be prepared to develop flexibility in your approach to different reports.
- A neat, orderly, balanced, well-spaced, and designed presentation usually is indicative of the excellence of its scientific content.