

Expectation and Format for CSS 260 Laboratory Reports[†]

1) **Title and Author.** The title should represent the article's content. It briefly identifies the subject, indicates the purpose of the study, and gives important, high impact words early.

2) **Introduction.** The report should begin by clearly identifying material that is the subject of the laboratory (or research). The author should state early on the definition of the problem the laboratory (or research) was designed to examine. The reader should also be provided with orientation to the concepts communicated within the report.

3) **Materials and Methods.** The purpose of these sections is to give enough detail so that a competent scientist could repeat the experiments. Often the specifics of a procedure(s), if the method(s) is common, will be cited as a reference rather than a verbatim recipe. You may reference the lab book. Any plant, soil, animal &/or other organism, should be identified accurately by taxon. In our case, Soil Series will be sufficient. This section should be in chronological order of the procedures performed.

4) **Results.** The objective of each experiment should be made clear in the report. Significant findings of the experiments should be noted. A common fault in this section is to repeat in prose, information already clear from a cursory examination of the graphics.

5) **Discussion.** The Discussion Section interprets the data presented in the Result Section. Often this section is combined with the Result Section. A good discussion will contain:

- a) Principles, relationships and generalizations that can be supported by the results.
- b) Exceptions, areas where there are gaps in the results or areas needing further investigation.
- c) Emphasis on results and conclusions that agree or disagree with work.
- d) Practical or theoretical implications of the results.

The Discussion Section should not recapitulate the Result Section, but should rather discuss the meaning of the results. The reader should be told how the results provide a solution &/or understanding to the problem stated in the Introduction Section.

6) **Conclusion.** A summary of evidence for each of your discussion points.

7) **References.** This section lists that references cited in the paper.

8) **Tables and Figures.** This section is often contained within the Result Section. This approach is preferable for publications with embedded graphics, but for graphics that are the only object(s) on a single page, it is usual to put all the graphics at the end of a report.

N.B. While the T.A.s will be reading these reports and we know what the lab is “about”, you should be writing as if to a knowledgeable, yet unfamiliar, audience!

[†]. Much of the material for this outline is from ASA/CSSA/SSSA Publications Handbook and Style Manual (1988). If you have further questions, refer to this document or ask a T.A..