

Report 1: Intrinsic Properties; due Oct 11; grade: 10% of final. Reports are expected to build on the descriptions entered into the laboratory notebook, and will contain a more thorough data analysis and discussion of results. It is anticipated that all lab reports will be word processed with a 5 page limit. Marks may be deducted if the report contains information that is not relevant to the report or excessive number of pages. You will receive instructions on how to write a laboratory report in the first class.

| Criteria | Score | | |
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| | Poor (0 points) | Fair (0.5 points) | Good (1.0 points) |
| Name and Title of experiment and layout | Report does not contain the student's name or poor layout e.g. sections not laid out in a style that is easily distinguishable, cramping too much information by changing font size and page margins or not according to submission instructions. | Report contains the student's name or title of the experiment on the report and/or on the file but not clearly articulated and with fair layout. | Report contains: the student's name and title of the experiment on the report and on the file and well laid out report. Title is descriptive and representative of the purpose. |
| Introduction | Report lacks an introduction to the topic. | Report contains insufficient or extraneous information that does not pertain to the experimental parameters and outcomes. | The report contains a concise introduction presenting pertinent background information regarding parameters studied in experiment. – Describes previous work in the area – Summarize what your report will discuss |
| References usage and citation in Introduction | No references or inappropriate references cited. | Minimal references cited, or insufficient references cited. Does not follow appropriate format. | Appropriate references cited in text. Follows "Journal of Food Protection" instructions. |
| Objective | The report does not contain an objective of research statement. | The report contains an incomplete or incorrect objective statement. | The report contains a concise objective statement. (Pertaining to the report, not the skills learned in lab). |
| Methodology | No methodology is written, or materials and methodology are copied verbatim from class protocol. | Methodology is partially complete, but could not be replicated due to insufficient information or is not written in paragraph form. | Methodology used is concisely expressed. All pertinent information is included (i.e; materials used, type of microbial analysis, and incubation conditions). Written in paragraph form. |
| Data Calculations | No average or SD values shown. | Only average or SD is calculated, or calculations shown are incorrect. | Average and SD for each microbial count are calculated. |
| Appropriate use of data presentation | Report contains incomplete data (not all three organisms and/or all three intrinsic properties). | Report contains all data, but it is presented inappropriately. Inappropriate presentation includes: – presenting the same data in both table and figure format, or only average or SD is presented. – presenting all data separately (9 tables or figures), or – not presenting data in table or figure format. – Inconsistent usage of units. | Report contains all data and presented in an easy to read/compare and concise manner. – Data is presented in figures OR tables (depending on best presentation) and easy to read; – Similar data parameters are grouped (by microorganism or intrinsic property); – Turbidity Table is concise; – Appropriate and consistent usage of units. |
| Table/Figure titles | Incorrect placement of table/figure titles and titles | Incorrect placement of table/figure titles or titles that | Correct placement of titles for tables/figures and use of concise and |

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| | that are not concise and descriptive. | are not concise and descriptive. | descriptive titles. |
| Use of standard deviation | Report (including tables and figures) does not include standard deviations. | Report (including tables and figures) includes standard deviations in some places but not throughout. | Report (including tables and figures) includes appropriate use of standard deviations throughout. |
| Data and observations | No description of data or observations, i.e. results section missing significant information and no written text to support the information presented in figures and tables. | Accurate description of observation and data sets and partially supports the purpose of illustrated figures and tables. | Professional and accurate representation of the figures and tables with appropriate use of scientific language to describe observations. i.e., text supports information presented in figures and tables and compare and contrast results. |
| Discussion | Limited discussion of results. Discussion does not address all data parameters and does not compare results to literature. No tables and figures are referred to in discussion section. | Discussion of data is incomplete, contains only minimal discussion of results and minimal comparison to literature. Some tables and figures are discussed, but not all. | Discussed what results mean for all data presented: <ul style="list-style-type: none"> - Were your results expected? - How do your results compare to previous research in this area? - What future experiments should be performed as a result of your research? All tables and figures presented are referred to in the discussion section. |
| Conclusion | No concluding statement or remarks given. | Incomplete conclusions drawn from experimental results. Conclusion had general overview of the experiment but missing significant information. | Concise concluding statement for experiment given in either a separate section or in the end of the discussion. Conclusion includes a summary of the experiment and whether the findings supported the hypothesis and objectives and broader implications or impact. |
| Reference list | No separate references cited section is included. | Reference list is incomplete or references are improperly cited. | Reference list is complete and properly cited. Follows “ Journal of Food Protection ” instructions for authors. |
| Length of Report | Report includes extraneous material that increases length longer than 8 pages. | Report contains unneeded information that exceeds the page limit. Total report is between 6 and 7 pages. | Report is brief and concise. Total length is no longer than 4-5 pages. |
| Use of Scientific writing | Report is difficult to read, includes numerous English or spelling errors, does not have a firm understanding of past tense, or does not write in third person writing styles. | Report is fairly easy to read, has some English and spelling errors, overall follows past tense, third person writing style. | Report is easy to read, little to no English and spelling errors, correct use of past tense, third person writing. |