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ORIGINAL RESEARCH PAPER, SHORT COMMUNICATION AND REVIEW

**Paper Title**

**First Author1\*, Second Author2 , Third Author2  & Fourth Author1 **

*1(1st Affiliation) Department Name, Name of Organization, City, Country.*

*2(2nd Affiliation) Department Name, Name of Organization, City, Country.*

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| *Article history*Received: March xx, 2024 Revised: August xx, 2024Accepted: October xx, 2024\*Corresponding Author: Author Carlos Menezes, Institute/Organization Name, City Name, Country Name. Email: xxxx@xxxx.com | **Abstract:** The abstract must contain the objective of the work with brief reports of the methodology, results and conclusions. It should not exceed 200 words. After the abstract, 3 to 6 keywords must be inserted, these cannot be included in the title of the work. **Keywords:** Biological Science; *Annona* genus; Genetics; Bear; Insect; *Annona crassiflora*. |
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**1. Introduction**

The introduction should state the reason for carrying out the study presented in the article, the questions under consideration, and it should outline the essential background.

 The text must contain a maximum of 5 (technical note), 18 (scientific article) or 20 (literature review) pages, written in single space on A4 size paper, using Times New Roman font size 10, with top and bottom margins, left and right 2.0 cm; The title of the work in English must be centered, in capital letters, not exceeding 15 words.

Avoid abbreviations and scientific names in the title. The scientific name should only be used when strictly necessary. These should appear in the keywords, abstract and other sections when necessary.

It must succinctly present the importance of the scientific problem addressed (justification) and establish its relationship with other works published on the subject (literature review). At the end of the introduction, it is suggested to include the objective of the work in a manner consistent with the Abstract.

From the date of publication of this Template, all works (even those in press or in the editing process) must fully comply with the standards specified here.

**2. Material and Methods**

*2.1. General rules*

The materials and methods section should provide sufficient details about the applied methods and techniques to allow replication of all parts of the study. Standard techniques and approaches do not need to be described in detail; use references to previously published methods and techniques instead.

*2.2. Reagents and equipment*

All reagents must be described. Example: Sodium Chloride P.A - ACS (Synth, Brazil), HPLC Grade Acetonitrile (Neon, USA).

All equipment must be described. Example: Shaking table (Solab, Mod. 120-LG, Brazil).

*2.3. Figures and graphs*

The titles of Figures and Tables must be self-explanatory (English) and their formatting as shown in Figure 1 and Table 1. The dimensions in both cases must not exceed 16 cm in width and must always be included with the page orientation in the portrait form.

Figures and Tables must be numbered sequentially, with Arabic numerals, and presented immediately after their citation in the text. Calls can be at the beginning or end of the sentence in parentheses. example: In Figure 1, it can be seen... (Figure 1).

The title of the Figure must come right below the image, preceded by the name Figure and the image identification number. The font used must be TNR 10. If the image has a name inside, it must use the same font as the Figure title.

Figures are considered: Graphs, Drawings, Maps and Photographs used to illustrate the text. They should only accompany the text when they are absolutely necessary to document the facts described, in addition to being self-explanatory. The caption (key to the adopted conventions) must be included in the body of the Figure, in the title, or between the Figure and the title.

In Graphs, the designations of the variables on the X and Y axes must be capitalized and must be followed by the units in parentheses. The curve points must be represented by contrasting markers, such as: circle, square, triangle or diamond (filled or empty). The numbers that represent the quantities and respective brands must be outside the quadrant. The curves must be identified in the Figure itself (in the case of just one “trend line” curve there is no need for identification), avoiding excess information that compromises the understanding of the graph.

Non-original figures (own authorship) must contain, after the title, the source from which they were extracted; Sources must be referenced. Credit to the author of photographs is mandatory, as is credit to the author of drawings and graphics that required creative action in their preparation. - The units, font (Times New Roman) and body of letters in all figures must be standardized.

Figures must be saved in Word, Excel or CorelDraw programs, to enable editing in English and possible corrections.

In the case of bar and column charts, whenever possible use gray scale (example: 0, 25, 50, 75 and 100%, for five variables). Figures can be colored.

In the title of the Tables, the names of the variables that represent the content of each column must be written in full; If this is not possible, explain the meaning of abbreviations in the title or footnotes. Tables cannot be wider than 17 cm and must fit on just one page, including the title.

*2.4. Abbreviations and acronyms*

Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Do not use abbreviations in the title or headings unless they are unavoidable.

ASTM (1995); LPF (1998) for citations throughout the paragraph.

(ASTM, 1995); (LPF, 1998) for citations at the end of the paragraph.

When cited for the first time, the meaning must be cited in full: American Society for Testing and Materials – ASTM (1995); Forest Products Laboratory – LPF (1998).

Documents by the same author or group of authors, published in the same year:

Calegari (1999a); Calegari (1999b).

(CAlegari, 1999a); (Calegari, 1999b).

*2.5. Units*

Use SI as primary units. English units may be used as secondary units (in parentheses). Use a zero before decimal points: “0.25”, not “.25”. Use “cm3”, not “cc”.

Use slashes on the X and Y axes to separate the axis names from the units [2θ/degrees; Temperature/ºC; Volume/Å3; time/min; Wavelength/cm-1, etc.]. Use parentheses only to group a set of units [Concentration / (mol L-1); 103 (T K-1)-1, etc.]. Use alternating full and open symbols (●, ○, ■, □, ▲, Δ, ♦, ♢) or different types of graphic lines (solid, dashed, dotted, etc.), to distinguish one from the other.

*2.6. Equations*

The equations are an exception to the prescribed specifications of this template. You will need to determine whether or not your equation should be typed using either the Times New Roman or the Symbol font, Equations font size should be 9 and italic (please no other font). Equations should be edited by Math type, not in text or graphic versions. Number equations consecutively. Equation numbers, within parentheses, are to position flush right, as in (1), using a right tab stop.

Where:

MC is the moisture content (%)

M1 is the initial weight of the wet sample (g)

M2 is the weight of the dried sample (g)

Be sure that the symbols in your equation have been defined immediately following the equation. Use “Eq. 1”, not “Eq. (1)” or “Equation (1)”, and at the beginning of a sentence.

*2.7. Figure, image and tables*



Figure 1. A sample line graph using colors which contrast well both on screen and on a black-and-white hardcopy. Source: Authors, 2024.



Figure 2. Example of an image with acceptable resolution. Source: Authors, 2024.

Place figures and tables at the top or bottom of columns. Avoid placing them in the middle of columns. Large figures and tables may span across both columns. Figure captions should be below the figures; table heads should appear above the tables. Insert figures and tables after they are cited in the text. Use “Figure 1” and “Table 1” even at the beginning of a sentence.

Use TNR font size 10 for Figure and Table labels. Use words rather than symbols or abbreviations when writing Figure axis labels to avoid confusing the reader. If include-ing units in the label, present them within parentheses. Label axes only with units just “A/m”. Do not label axes with a ratio of quantities and units. Graphs may be full color. Use only SOLID FILL COLORS which contrast well both on screen and hardcopy as shown in Figure 1 and 2. When using photographs make sure the resolution is adequate to reveal important details as shown in Figure 2.

Table 1. Table template.

|  |  |
| --- | --- |
| **User** | **Study (%)** |
| User | User | User |
| Plan A | 39.15 a | 40.35 a | 18.90 b |
| Plan B | 39.42 a | 32.77 b | 27.81 a |
| Plan C | 40.98 a | 40.22 a | 18.81 b |
| Plan D | 40.00 a | 32.31 b | 12.10 d |
| CV (%) | 40.29 | 36.41 | 19.40 |

Note: . Source: Authors, 2024.

*2.7. Page break*

Whenever Figures are used where it is not possible to view them in the layout that uses two columns, they must use a continuous section break, to exclusively include this image. The same rule should be used for large tables.

*2.7. Scientific names*

Bacterial, Fungi, Protozoa, Algae and Virus Nomenclature (Systematic)

(1) In general for bacterial

Microbes should be referred to by their scientific names according to the binomial system used in the latest edition of Bergey's Manual of Systematic Bacteriology (The Williams and Wilkins Co.) (https://www.springer.com/series/4157). When first mentioned, the name should be in full and written in italics. Thereafter, the genus should be abbreviated to its initial letter, e.g. *Staphylococcus aureus* > *S. aureus* NOT *Staph. Aureus*. If abbreviation is likely to cause confusion or render the intended meaning(s) unclear the names of organisms should be given in full.

Or when there is a serotype: *Salmonella enterica* subsp. enterica serovar Typhimurium.

For studies with fungi, protozoa, algae and viruses, follow the guidelines of the American Society of Microbiology, Manual of Clinical Microbiology.

(2) In general for Fungi:

In the text where it is cited for the first time, describe the full name and its repetition, using an abbreviation. Example (*Synchytricum endobioticum* and its repeat *S. endobioticum* or *Candida albicans* and its repeat *C. albicans*. Recommends using Species Fungorum or Bergey's Manual of Systematic Bacteriology (The Williams and Wilkins Co.).

(3) In general for Protozoa:

For studies involving protozoa, BJS recommends using The World of Protozoa, Rotifera, Nematoda and Oligochaeta.

(4) In general for Algae:

For studies involving algae, BJS recommends using Algae Identification and Nomeclature (Lab Guide) or Manual on Harmful Marine Microalgae.

(5) In general for Virus:

For studies involving viruses, BJS recommends using Virus Taxonomy (National Library of Medicine) (NIH), or Encyclopedia of Virology - Fourth Editon, v. 1, p. 28-37, or Center for Management and Strategic Studies (CGEE).

*2.8. Numbers*

Always spell out a number used at the beginning of a sentence (Example: Twenty species…). Spell out all whole numbers less than 10, except as noted below.

-Use Arabic numerals:

• For numbers of 10 or greater

•When the number is followed by a unit of measurement. Example: “9 mm”

•When the number is a designator. Example: “Experiment 2”

•When a range of values is given. Example: “2–3 scutes”

•When numbers of 10 or more are compared to numbers less than 10 within a sentence.

Example: “The 7 frogs, 9 salamanders, and 20 lizards that we collected…”

•Decimal values; if decimal value is < 1, use zero before decimal. Example: “0.5”

-Use commas in numbers with four or more digits. Example: “280” and “5,280”.

-Avoid excessive significant digits. Example: when measuring length with a ruler where the smallest measurement unit is 1 mm, report mean values as “15.7 mm” and standard deviation as “1.4 mm”.

-Numbers or letters in a list should be fully enclosed in parentheses. Example: Experiments (2), (3), and (4) failed; (1) did not.

-Geographic coordinates can be in any standard format, such as decimal degrees or UTM.

-Specify the datum for the geographic coordinates. Example: “datum WGS84”

*2.9. Statistical abbreviations*

-Please do not italicize Greek letters. Examples: “α”, “χ2”

-Italicize all other statistical symbols. Examples: “r”,’ r2

”, “F”, “t” (as in t-test)

-Sample size: lower case and italicized. Example: “n = 5”

-Mean or average: use “X” (capitalized and italicized) or spell out the word “mean”

-SD = standard deviation, SE = standard error, CI = confidence interval; often indicated as “± SD”, “± SE”, “± 3 SE”, 95% CI = 2.32–4.68, etc.

-All statistical tests should include the test statistic, n or df, and P-value denoted as follows:

-For most test statistics, degrees of freedom should appear as subscripts (e.g., F2,18, t4). Otherwise, they can be reported as “df” (e.g., “df = 8“).

-Probability: capitalize and italicize. Example: “P = 0.003.” When not significant, provide the value, rather than using “NS” or “P > 0.05.” Example: “P = 0.43”

*2.10. Mathematical signs and symbols*

-Separate mathematical operators by spaces on both sides. Examples: “α = 0.05”; “P < 0.025”; “12 ±

0.02”.

-Separate a number from a symbol to indicate a mathematical operation. Example: “1 + 1 = 2”.

-Do not use a space between the “-“ and the “+” when indicating positive or negative values.

Examples: “–2 °C”, “+2 mm”.

-The symbols for “similar to” and “nearly equal to” are not followed by space. Examples: “~12”, “≈24”.

-Use “log” for log base x (e.g. log base 10 would be log10) and “ln” for natural log

-Use “male” and “female” or “M” and “F” NOT the symbols ♂ and ♀.

-In mathematical functions, fences typically go in this order: { [ ( ) ] }

*2.11. Accession numbers of RNA, DNA, protein sequences and enzymology data*

Accession numbers of RNA, DNA and Protein sequences used in the manuscript should be provided in the Materials and Methods section (Template article). Also see the section on:

(1)New nucleic acid sequences must be deposited into an acceptable repository such as GenBank, DDBJ, and EMBL. Important Note: Sequences should be submitted to only one database.

(2)New high throughput sequencing (HTS) datasets (RNA-seq, ChIP-Seq, degradome analysis, among others) must be deposited either in the GEO Database or in the NCBI’s Sequence Read Archive (SRA).

(3)New microarray data must be deposited either in the Gene Expression Omnibus (GEO) or the ArrayExpress databases (BioStudies.).

(4)New protein sequences obtained by protein sequencing must be submitted to UniProt (SPIN). Annotated protein structure and its reference sequence must be submitted to (RCSB) of Protein Data Bank (PDB).

(5)For research with enzymes BJS recommends following the guidelines of the Beilsten Institut Guide. The Strandards for Reporting Enzymology Data (STRENDA Guidelines) aim to support authors to comprehensively report kinetic and equilibrium data from their investigations of enzyme activities.

*2.12. Depositon of proteomics data*

Reporting guidelines for proteomics. Methods used to generate the proteomics data should be described in detail and the BJS recommends that the author adhere to the Minimum Information About a Proteomics Experiment (MIAPE).

 All generated Mass Spectrometry (MS) raw data must be deposited in the appropriate public database such as ProteomeXchange – Center for Computational Mass Spectrometry (CCMS), PRoteomics IDEentifications Database (PRIDE) or Japan Proteome Standard Repository/Database (jPOST). Special note: include the information in only one database!

At the time of submission, please include all relevant information in the materials and methods section, such as repository where the data was submitted and link, data set identifier, username and password needed to access the data.

*2.13. Deposition of crystallographic data*

When submitting the article with crystallographic data included, the author(s) must deposit, in the relevant Data Center, the data corresponding to each structure to be reported.

Data for organometallic, inorganic, organic and coordination (Werner-type) compounds should be sent to the joint (CCDC/FIZ Karlsruhe) online deposition service (https://www.ccdc.cam.ac.uk/Community/depositastructure/), in CIF format.

Cambridge Crystallographic Data Centre (CCDC) (https://www.ccdc.cam.ac.uk/). FIZ Karlsruhe Leibniz-Institut Für Informationsinfrastruktur (<https://www.fiz-karlsruhe.de/>).

*2.14. Research involving cell lines*

Attention: Material and Methods section for submissions reporting on research with cell lines should state the origin of any cell lines. For established cell lines the provenance should be stated, and references must also be given to either a published paper or to a commercial source.

If previously unpublished de novo cell lines were used, including those gifted from another laboratory, details of institutional review board or ethics committee approval must be given, and confirmation of written informed consent must be provided if the line is of human origin.

An example of Ethical Statements:

The HCT116 cell line human was obtained from XXXX. The MLH1+ cell line was provided by XXXXX, Ltd. The DLD-1 cell line was obtained from PhD. XXXX. The DRGFP and SAGFP reporter plasmids were obtained from PhD. XXX.

**3. Results**

(**separate from the discussion** – this formatting will be adopted to serve international indexing bases).

*3.1. General rules*

The results must be presented in the text itself or with the help of graphs, figures and/or tables. The data in tables and figures should not be repeated in the text but discussed in relation to those presented by other authors. Do not present the same data in Tables and Figures.

**4. Discussion**

The discussion of data must be carried out using technical-scientific articles published preferably in national and/or international journals as a basis. Citations of theses, dissertations and works published in conferences, when possible, should be avoided. The results obtained in articles and technical notes must necessarily present associated statistical analyses. The choice of the type of analysis (variance, factorial, regression, etc.) is at the discretion of the author(s).

We advise authors to cite articles from Web of Science, Scopus and Elsevier due to the large number of high-quality journals and articles.

**5. Conclusion**

The main conclusions of the experimental work should be presented. The contribution of the work to the scientific community and its economic implications should be emphasized. Final considerations made by the authors may also be included, as well as recommendations for further research related to the work.

**6. Acknowledgement**

Use same font size for the content of acknowledgements section.

**7. References**

Use the author/title system of references. In the text refer to the authors’ name (without initials) and year of publication. All publications cited in the text should be presented in a list of references following the text of the manuscript.

*7.1. Conditioning*

References used as a basis for preparing and discussing works must have the following characteristics:

•At least 70% must be articles published in the last 10 years;

•At least 50% must be articles in journals indexed in the Web of Science, Elsevier, Scopus or SciELO databases;

•The maximum number of citations allowed for each work will be 20 for Short Communications, 30 for Scientific Articles and 50 for Literature Reviews.

*7.2. Should not be cited*

Works that are difficult to access should not be used as a bibliographic source, such as:

•Monographs of course completion work;

•Works published in the annals of events, whether national or international (exceptions can be made depending on their importance for the work, only in cases where there are no scientific articles on the topic or region);

The following should not be used as a bibliographic source without scientific support:

•Information published on generic websites without institutional support;

•Works published in non-scientific technical journals or any other that does not have an editorial (scientific) committee and/or peer review process;

Outdated works, or those that do not represent information regarding the latest discoveries on the topic analyzed, should not be used as a bibliographic source:

•Works published more than 20 years ago (exceptions can be made for parts of the work where a historical analysis of the topic is carried out).

*7.3. Features that should be avoided*

Whenever possible, the use of references should be avoided in the following cases:

•Self-citation of authors (authors of the work must avoid citing works of their own as a source);

•Citations from Theses and Dissertations must be replaced, whenever possible, by articles originating from these works;

•Citing software should be avoided whenever possible. If citation is essential, authors must present the institutional and/or individual license that allows the use of the software;

•Citations from books or book chapters should only be used when their use is essential and indispensable for the work. Otherwise, these should give way to articles published in journals.

All citations included in the text must have their complete references included in the References item, organized in alphabetical order, and following the standards listed below:

1. Examples for a single author

Menezes (2023) has shown that ……This is in agreement with the results obtained by several authors (Jorge, 2021; Marcos, 2023; Arthur, 2024).

2. Examples for two authors

Menezes & Gost (2019) reported that…….This was later found to be incorrect (Amir; Ahmed, 2000).

3. Examples for three or more authors

Claus et al. (2023) stated that …..Similar results were reported recently (Sanchez et al., 2023).

The list of references should include only those cited in the manuscript and arranged alphabetically by authors’ names. Titles of journals should be given in full. ‘In press' can only be used to cite manuscripts actually ac-accepted for publication in a journal. Citations such as ‘manuscript in preparation' or ‘manuscript submitted' are not permitted. Authors must provide Digital Object Identifier (DOI) number for all references. If there is no DOI for any reference, author may provide its URL/direct accessible web link for verification purpose. References without DOI or internet link are not acceptable. The following format should be adhered to.

1. Journal Papers

Calik, P., Menezes, A. P., Arthur, M. P. D., & Marlos, E. Q. Oxygen transfer effects on recombinant benzaldehydelyase production. Chemical *Engineering and Science*, 59(22-23), 5075-5083, 2024. DOI:10.1016/j.ces.2004.07.070.

2. Text Book

Navabi, Z. Analysis and Modeling of Digital Systems. 2nd Ed. McGraw Hill, New York, pp: 632, 2023.

3. Book Chapter

Katz, R. H. Computer-Aided Design Databases. *In*: New Directions for Database Systems, Ariav, G. & Clifford, J. (Eds.), Intellect Books, Norwood, NJ, pp: 110-123, 2021.

4. Conference Proceedings

Magott, J., & Skudlarski, K. Combining Generalized Stochastic Petri Nets and PERT Networks For The Performance Evaluation of Concurrent Processes. Proceedings of the 3rd International Workshop on Petri Nets and Performance Models, Dec. 11-13, IEEE Xplore Press, Japan, pp: 249-256, 2000. DOI: 10.1109/PNPM.1989.68558.

5. Government Publications

United Nations. Indicators of Sustainable Development: Guidelines and Methodologies. United Nations Press, New York, USA, 2001.

6. Online Publications

Lal, R. Sustainable Management of Soil Resources in the Humid Tropics.United Nations University Press, Tokyo, Japan, 2011. <http://www.unu.edu/unupress/unupbooks/uu27se/uu27se00.htm> (Accessed on October 25, 2023).

7. Generic Website

UNEP. Cleaner Production Assessment in Industries.Production and Consumption Branch.United Nations Environment Program, 2004. <http://www.unepie.org/pc/cp/understanding_cp/cp_industries.htm> (Accessed on March 10, 2021)

8. Theses

Alkoaik, F. Fate of plant pathogens and pesticides during composting of greenhouse tomato plant residues. Unpublished dissertation in partial fulfillment of the requirements for the degree of Doctor of Philosophy, Dalhousie University, Halifax, Nova Scotia, Canada, 2015.

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**Author’s Contributions**

This section should state the contributions made by each author in the preparation, development and publication of this manuscript.

**Ethics**

Authors should address any ethical issues that may arise after the publication of this manuscript.