TITLE OF PAPER
[Title: Uppercase, Bold, Times New Roman, Font Size 16, Centered;

Page margin of top, bottom, left and right = 2.54 cm]

**ALI AHMAD1\*; JOHN VIRK2 and XING TAN3**[Uppercase, Bold, Times New Roman, Font Size 12, Centered, Superscript 1, 2, 3 *etc*. To Indicate Affiliation, Superscript \* To Indicate Corresponding Author]

1 Malaysian Palm Oil Board, 6 Persiaran Institusi, Bandar Baru Bangi, 43000 Kajang, Selangor,
 Malaysia.
2 Faculty of Science and Technology, Universiti Kebangsaan Malaysia, 43600 UKM Bangi,

 Selangor, Malaysia.

3 Malaysian Timber Industry Board, 42700, Banting, Selangor, Malaysia.

[Indicate authors’ affiliation with superscript 1, 2, 3, *etc.* and start each address on new line, Times New Roman, font size 12]

*\*Corresponding author e-mail:* *aliahmad@mpob.gov.my*[Times New Roman, italic, font size 12]

**ABSTRACT**

An abstract is required for every paper. Your abstract should give readers a brief summary of your article. It should concisely describe the contents of your article, and include key terms. It should be informative, accessible and not only indicate the general scope of the article but also state the main results obtained and conclusions drawn. The abstract should be complete in itself; it should not contain undefined abbreviations and no table numbers, figure numbers, references or equations should be referred to. It should be suitable for direct inclusion in abstracting services and should be within 150-200 words.

**Keywords:** anaerobic-aerobic, biogas, biological oxygen demand, palm oil.
[3-5 words; lowercase, Times New Roman; font size 12; arrange alphabetically]

**Received:** [JOPR use only] **; Accepted:** [JOPR use only] **; Published Online:** [JOPR use only]

**INTRODUCTION**

[All first order headings use Times New Roman, font size 12, bold and centered]

The paper must be in British English. Naturally, your paper should start with a concise and informative sentence describing the title of the article (Ali *et al.*, 2020). Ali *et al.* (2020) is the reference style to be cited in JOPR manuscript. Do not use abbreviations in it. Next, list all authors with their first names or initials and surnames (in that order). Indicate the author for correspondence. After having listed all authors’ names, you should list their respective affiliations. Link authors and affiliations using superscript lower-case letters. In general, the contents should comprise of Introduction, Materials and Methods, Results and Discussion, Conclusion, Acknowledgement and References. The manuscript should be supplied with 3-5 keywords.

Authors are expected to consider carefully the list and order of authors before submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only before the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the corresponding author: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed. No additions, deletions or changes to authorship of a paper will be permitted after the article is accepted.

**MATERIALS AND METHODS**

You will usually want to divide your article into first order headings and second order headings (perhaps even third order headings). Headings should reflect the relative importance of the sections. Methods should be described in past tense as you are describing work that was carried out to achieve the objective of the study.

**Journal of Oil Palm Research** [Second order headings should be bold, Times New Roman, font size 12, capitalised each first word.]

Journal of Oil Palm Research (JOPR) is an international refereed journal on various aspects of oil palm and/or palm oil. The journal is circulated extensively within Malaysia as well as other countries to individuals, commercial organisations, agencies related with oil palm and palm oil, abstracting companies and academic institutions. JOPR covers the study and exploitation of areas such as Biology & Sustainability, Food technology, Oleochemistry, Breeding and Engineering. Authors should clearly define their category of work in cover letter. The journal publishes research articles, reviews and short communication whose content and approach are of interest to a wide range of scholars.

In order to maintain the high standards associated with JOPR, papers submitted are thoroughly scrutinised on their quality especially in their originality, context and universality of the findings. Of course, they have to be readable with Standard English language. Every paper published should preferably be at the cutting edge of science, or sharing something new and exciting.

[Third order headings should be bold, italic, Times New Roman, font size 12, capitalised the first word]

***Regular article*.** Full-length original empirical investigations, consisting of introduction, materials and methods, results and discussion, conclusions. Original work must provide references and an explanation on research findings that contain new and significant findings. Conclusion should be brief and focus on the research output, should not be in point form. These papers should not exceed 6000 words of text (including tables, figures and references) and generally not more than a total of 10 figures and tables. After peer-review, the article word count limit can be extended to a maximum of 8,000 words to better address the reviewers’ and editors’ comments. Any additional figures or tables can be included in the supplementary data. Please note that papers submitted to JOPR will be sent back to authors because of poor figure resolution or exceeding the number of figures permitted.

[Third order headings should be bold, italic, Times New Roman, font size 12, capitalised the first word]

***Short communication*.** Significant new information to readers of the Journal in a short but complete form. Preferably not exceeding 3000 words (including tables, figures and references), and is intended for rapid publication. They are not intended for publishing preliminary results or to be a reduced version of Regular papers.

***Review article.*** Critical evaluation of materials about current research that have already been published by organising, integrating, and evaluating previously published materials. Re-analyses as meta-analysis and systemic reviews are encouraged. Review articles provide systemic overview, evaluation and interpretation of research in a given field. They should not exceed 12 000 words (excluding references only) and should contain no more than a total of 20 figures and tables. Any additional figures or tables can be included in the supplementary data. Please note that papers submitted to JOPR will be sent back to authors because of poor figure resolution or exceeding the number of figures permitted. The same information should not be repeated in a figure and a table.

**RESULTS AND DISCUSSION**

All illustrations must be labelled and supplied on after introducing in the text. The illustrations of photographs, schemas, graphs and diagrams are to be referred as figures. Figure is to demonstrate trend or leading to a conclusive statement, and is a raw spectrum or chromatography that should be accepted in a scientific articles. Figures should be placed at the top or bottom of a page wherever possible, as close as possible to the first reference to them in the paper. These illustrations should be referred to and numbered serial, as figures (*Figure 1*). All Tables and Figures cited in the text must be in italics *e.g*. *Figure 1*. The figure number and caption should be typed below the illustration in Times New Roman, font size 12, italic and centered as shown in *Figure 1* and *2*.



*Figure 1. Illustration text and caption should be* *Times New Roman,
font size 12, italic, centered and included in body text.*



*Figure 2. All the text and number in the illustrations must be in Times New Roman
and font size 12. Lettering and symbols should be clearly defined in the caption.*

Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used. All the text and number in the illustrations must be in Times New Roman and font size 10. Please indicate the Y & X-axis as well as the unit measurement. Lettering and symbols should be clearly defined in the caption. Please ensure that all the figures are of at least 500 dpi resolutions as this will facilitate good output. The high resolution of each figure should also be uploaded in ScholarOne system as separate image (in PNG or JPEG format). All illustrations should be clearly drawn in permanent ink or photographed in sharp black and white and reproduced in the form of high contrast glossy prints or digital images and provided in camera ready form.

All tables must be labelled and supplied on after introducing in the text. Tables should be placed at the top or bottom of a page wherever possible, as close as possible to the first reference to them in the paper. These tables should be referred to and numbered serial, as tables (*Table 1*). Every table should have a caption and headings should be placed above tables. The table number and caption should be typed in uppercase, Times New Roman, font size 12, bold, and centered.

**TABLE 1. UPPERCASE, TIMES NEW ROMAN,
FONT SIZE 12, BOLD AND CENTERED**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Type | Title two | Title three | Title four | Title five | Title six |
| A | 12 | 16 | 11 | 11 | 10 |
| B | 1 | 4 | 7 | 6 | 2 |
| C | 15 | 5 | 9 | 4 | 17 |

 Source: World (2020).

 Note: FFA - free fatty acid; SA- stearic acid.

All the text and number in the tables must be in Times New Roman, font size 10 and centered. In the table heading, no initial capitals except for the first word. Lettering and symbols should be clearly defined either in the caption of the table. Only horizontal lines should be used within a table, to distinguish the column headings from the body of the table, and immediately above and below the table. *Table 1* is an example which the authors may find useful. Please ensure that the data presented in figures or tables do not duplicate results described elsewhere in the article.

References in the text should be denoted by giving the name(s) of the author(s). All alphabetically ordered references list should be included at the end of the manuscript. All references cited in the text must appear in the reference list and vice versa. Authors are responsible for the accuracy and completeness of all information in the reference. Manuscripts must confirm to the references in *Journal of Oil Palm Research* (JOPR) Style. The references style adopted should be consistent throughout the manuscript.

Below are the examples for journal articles, books, books chapter, proceedings, website, thesis and others.

**a) Books with One or More Authors**

 Name of author(s) (Year of Publication). Title of book (italic in print, underlined in typescript), edition, volume, name of publisher, Publisher’s location, first and last pages of portions referred to.

 Anonymous work may be cited with ‘Anon’ in place of the author’s name.

*e.g.* Ariffin Darus (2000). Major diseases of oil palm. *Advances in Oil Palm Research* (Yusof Basiron; Jalani, B S and Chan, K W eds.). MPOB, Bangi. p. 596-623.

 MPOB (2019). *Malaysian Oil Palm Statistics 2019.* 39th edition. MPOB. Bangi. 207

 pp.

**b) Journal Articles**

 Name of author(s) (Year of publication). Title or article. Abbreviated name of journal (italics), first and last page of the article, DOI Number.

*e.g.* Parveez, G K A; Bahariah, B; Ayub, N H; Masani, M Y A; Rasid, O A; Tarmizi, A H and Ishak, Z (2015). Production of polyhydroxybutyrate in oil palm (*Elaeis guineensis* Jacq.) mediated by microprojectile bombardment of PHB biosynthesis genes into embryogenic calli. *Front. Plant Sci.*, *6*: 598. DOI: 10.3389/fpls.2015.00598.

 Kushairi, A; Ong-Abdullah, M; Nambiappan, B; Hishamuddin, E; Izzudin, Z B; Razmah, G; Subramaniam, V; Sundram, S and Parveez, G K A (2018). Oil palm economic performance in Malaysia and R&D progress in 2018. *J. Oil Palm Res., 31(2*):

 165-194. DOI: 10.21894/jopr.2019.0026.

**c) Non-English References**

Name of author(s) (Year of publication). Title of article. Name of publication (italics) (abbreviated, if journal), volume, issue number (if relevant), first and last page of article. Particular care should be taken with diacritical marks: they should be checked against the original and inserted by hand on the typescript (if necessary).

*e.g.* Reyes Cuesta, R; Bastidas Perez, S and Pena Rojas, E A C (1997). Distribucion del sistema radical de la palma de aceite (*Elaeis guineensis* Jacq.) en Tumaco, Colombia. *Revista Palmas*, *18*: 49-57.

**d) Paper Accepted but Not Yet in Print**

 Name of author(s) (Year of publication). Title or article. Name of publication (italics) (abbreviated, if journal). DOI:

*e.g.* Ooi, T L; Yong, K C; Dzulkefly, K; Wan Yunus, W M Z and Hazimah,

 A H (2002). Crude glycerine recovery from glycerol residue waste from a palm kernel oil methyl ester plant*. J. Oil Palm Res.* DOI: 10.21894/jopr.2019.0026.

**e) Paper Presented at a Conference**

 Name of author(s) (Year of presentation). Title of paper. Title of conference *etc.* Place, Date, Month and Year.

*e.g.* Yusof Basiron (2002). Palm oil stock reduction through biofuel program. Paper presented at the National Seminar on Positioning the Malaysian Palm Oil Industry in Challenging Times. Equatorial Hotel, Bangi. 20 February 2001.

**f) Personal Communication**

 Name of person or organisation (Year) Personal Communication. Place.

*e.g.* Rosidah Radzian (2017). Personal communication. Malaysian Palm Oil Board, Bangi, Selangor, Malaysia.

**g) Paper in Published Proceedings of Conference, Congress, *etc*.**

 Name of author(s) (Year of publication). Title of article. Title of proceedings (italics) *etc.* Place, Year, First and last page of article.

*e.g.* Mohd Basri Wahid; Norman Kamarudin; Jackson, T and Zulkifli Masijan (2003). Occurence of parasitic nematodes *Elaeolenchus parthenonema* in the pollinating weevil, *Elaeidobius kamerunicus* and its possible implications on fruit set. *Proc. of the PIPOC 2003 International Palm Oil Congress - Agriculture Conference*. MPOB, Bangi. p. 425-448.

**h) Thesis**

 Name of person (Year). Title. Degree for which thesis was written. Name of University, location.

*e.g.* Parveez, G K A (1998). *Optimization of parameters involved in the transformation of oil palm using the biolistics method*. Ph.D thesis, Universiti Putra Malaysia.

*e.g.* Zainab Idris (1998). *Lipase-catalysed synthesis of fatty aminoesters from fatty acids and triethanolamine.* Masters thesis, Universiti Putra Malaysia.

**i) Unpublished Data**

 Name of person. Unpublished data. Name of organisation or institution, location.

*e.g.* N Balu. Unpublished data. Malaysian Palm Oil Board, Bandar Baru Bangi, Selangor, Malaysia.

**j) Website**

 Website. (Year). Title of article. (Link), accessed on (date accessed).

*e.g.* Transparency Market Research (2016). Nutrigenomics market - global industry analysis, size, share, growth, trends and forecast 2012-2018. <http://www.transparencymarket>research.com/nutrigenomics-market.html, accessed on 14 March 2016.

*e.g.* Harrison- Dunn, A-R (2015). Nestle files casein infant formula patent for better insulin sensitivity. <http://www.nutraingredients.com/Research/> Nestle-files-casein-infant-formula-patent-for-betterinsulin-sensitivity, accessed on 14 March 2016.

**k) Others**

*e.g.* Junaidah, J; Kushairi, A; Isa, Z A; Mohd Din, A; Noh, A and Rajanaidu, N (2004). PS7: High bunch index breeding population. *MPOB Information Series No. 228.*

**CONCLUSION**

Manuscripts should be submitted via: https://mc04.manuscriptcentral.com/jopres. It is the author’s responsibility to ensure that his or her submitted work does not infringe any existing copyright. Authors should obtain permission to reproduce or adapt copyrighted material and provide evidence of approval upon submitting the final version of a manuscript. Manuscripts will be reviewed by the Editorial Board and at least one independent referee. Decisions regarding the publication of a manuscript will be based on the Board’s recommendations. The manuscript will be evaluated based on its appropriateness for JOPR), contribution to the discipline, cogency of analysis, conceptual breadth, clarity of presentation and technical adequacy. Manuscripts submitted by members of the journal’s Editorial Board are subjected to the same review procedure.

**ACKNOWLEDGEMENT**

The information presented in the acknowledgment section should be kept brief, identify the contributors responsible for specific parts of the project. It should only mention people directly involved with the project from a sponsoring institution, other researchers who have helped in the preparation. This template gives formatting guidelines for authors preparing papers for publication in the JOPR. The authors must follow the instructions given in the document for the papers to be published.

**REFERENCES**

**[Arrange alphabetically]**

Ahmad, A L; Ismail, S and Bhatia, S (2003). Water recycling from palm oil mill effluent (POME) using membrane technology. *Desalination*, *157(2)*: 87-95.

Azmi, N S and Yunos, K F M (2014). Wastewater treatment of palm oil mill effluent (POME) by ultrafiltration membrane separation technique coupled with adsorption treatment as pre-treatment. *Agric. Agric. Sci. Procedia*, *2(15)*: 257-264.

Basri, M; Yacob, S; Hassan, M; Shirai, Y; Wakisaka, M; Zakaria, M and Phang, L (2010). Improved biogas production from palm oil mill effluent by a scaled-down anaerobic treatment process. *World J. Microb. and Biotech.*, *26(1)*: 505-514.

Chernicharo, C A de L (2007). Anaerobic reactors. *Biological Wastewater Treatment Series*. IWA Publishing, London. p. 99-100.

Ganidi, N; Tyrrel, S and Cartmell, E (2009). Anaerobic digestion foaming causes - A review. *Bioresour. Technol.*, *100(2)*: 5546-5554.

Hosseini, S E; Wahid, M A and Aghili, N (2013). The scenario of greenhouse gases reduction in Malaysia. *Renewable and Sustainable Energy Reviews*, *28(5)*: 400-409.

Jeganathan, J; Nakhla, G and Bassi, A (2006). Long-term performance of high-rate anaerobic reactors for the treatment of oily wastewater. *Environ. Sci. Technol.*, *40(12)*: 6466-6472.

Kandiah, S and Batumalai, R (2013). Palm oil clarification using evaporation. *J. Oil Palm Res.*, *25(2)*: 235-244.

Liew, W L; Kassim, M A; Muda, K; Loh, S K and Affam, A C (2015). Conventional methods and emerging wastewater polishing technologies for palm oil mill effluent treatment: A review. *J. Environ. Manage.*, *149(5)*: 222-235.

Loh, S K; Lian, L D; Sukiran, M A and Choo, Y M (2011). A biogas trapping facility for handling palm oil mill effluent (POME). *MPOB Information Series 564*, *MPOB TT No. 491.*

Loh, S K; Lai, M E; Ngatiman, M; Lim, W S; Choo, Y M; Zhang, Z and Salimon, J (2013). Zero discharge treatment technology of palm oil mill effluent. *J. Oil Palm Res.*, *25(2)*: 273-281.

Ma, A N (1999). Innovations in management of palm oil mill effluent. *The Planter (Malaysia)*, *Kuala Lumpur 75(881)*: 381-389.

Ma, A N (2000). Environmental management for the oil palm industry. *Palm Oil Developments*, *30*: 1-10.

Yacob, S; Hassan, M A; Shirai, Y; Wakisaka, M and Subash, S (2006). Baseline study of methane emission from anaerobic ponds of palm oil mill effluent treatment. *Sci. Total Environ.*, *366(2)*: 187-196.