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| Journal Name: | [**Journal of Scientific Research and Reports**](https://journaljsrr.com/index.php/JSRR) |
| Manuscript Number: | **Ms\_JSRR\_140661** |
| Title of the Manuscript: | **Multivariate Analysis for Enhancing Seed Yield and Oil Quality in Sunflower (Helianthus annuus L.): Correlation Dynamics and Principal Component Dissection of Oil Content and Fatty Acid Profiles** |
| Type of the Article | **Research Article** |

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| **PART 1: Comments** | | |
|  | **Reviewer’s comment**  **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | **Author’s Feedback** (It is mandatory that authors should write his/her  feedback here) |
| **Please write a few sentences regarding the importance**  **of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | The subject of the study presented is interesting and topical, with scientific and practical importance. | Ok, no feedback required here |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | The title of the article is appropriate, in relation to the topic addressed | The title has been changed as suggested by the comments by the reviewer. New title is: **Deciphering Trait Interrelationships in Sunflower (*Helianthus annuus* L.): A Multivariate Approach to Optimise Seed Yield and Oil Quality.** |
| **Is the abstract of the article comprehensive? Do you**  **suggest the addition (or deletion) of some points in this section? Please write your suggestions here.** | The article Abstract is comprehensive and the keywords are representative of the article topic | Ok, no feedback required |
| **Is the manuscript scientifically, correct? Pleas e write here.** | The subsections and structure of the manuscript are appropriate, in accordance with the General Guideline for Authors | Ok, no feedback required |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention**  **them in the review form.** | The introduction is supported by a single bibliographic source. More extensive documentation is recommended. | Same has been updated |

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| **Is the language/English quality of the article suitable for scholarly communications?** | The English language and the quality of the article are suitable for academic communications, and the article is accessible to readers. | | | Ok, no feedback required |
| **Optional/General** comments | 1.  The introduction is supported by a single bibliographic source. More extensive documentation is recommended.  2.  The numbering of the equations would be appropriate.  3.  Do not write a comma before the parenthesis. e.g.  page 4, "Rao, (1987)" "Tariq et al., (1992)"  "Rao (1987)" instead of "Rao, (1987)"  "Tariq et al. (1992)" instead of "Tariq et al., (1992)"  It is recommended to check and correct, as necessary, throughout the entire article.  4.  It is appropriate that references to tables in the text be made before the tables are presented.  5.  The number and title of a figure are positioned below the figure, not above the figure.  e.g. page 7 – 8, Figure 1 and Figure 2.  6.  If possible, Figure 1 and Figure 2 could be presented at a better resolution.  7.  The conclusions could be more consistent.  8.  Better documentation for the Introduction chapter can complement the bibliographic sources. Thus, a revision of the References chapter with new bibliographic sources will be necessary. | | | 1. Same has been updated. 2. Equations have been deleted from the statistical analysis as per the comment from the reviewer in the main document. 3. Citations have been corrected. 4. Tables are now presented before their representation in the text in results and discussion, while new tables added in the material and methods, as per the recommendation of the reviewer, are placed after the text. 5. Number and title are now placed below the figure and the figure is place before its citation in the paragraph. 6. Better resolution imaging is done. 7. 7. Conclusion has been updated. 8. Introduction and references have been improved. |
| **PART 2:** | | | | | | |
|  | | | **Reviewer’s comment** | **Author’s Feedback** (It is mandatory that authors should write his/her feedback here) | | |
| **Are there ethical issues in this manuscript?** | | | *(If yes, Kindly please write down the ethical issues here in details)* |  | | |