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| Journal Name: | [**International Journal of Environment and Climate Change**](https://journalijecc.com/index.php/IJECC) |
| Manuscript Number: | **Ms\_IJECC\_131257** |
| Title of the Manuscript: | **Unveiling the Power of Epigenetics in Seed Dormancy and Germination** |

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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** *(Please correct the manuscript and highlight that part in the manuscript. 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.** | This manuscript provides a significant contribution to the field of plant biology by highlighting the role of epigenetics in seed dormancy and germination. Understanding epigenetic mechanisms governing these processes has practical applications in agriculture, crop improvement, and conservation. The discussion on leveraging epigenetic knowledge for sustainable agriculture and enhancing crop resilience makes this study particularly relevant.  By bridging genetic and environmental influences on seed development, the manuscript offers valuable insights for researchers and practitioners in plant sciences. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | The title "Unveiling the Power of Epigenetics in Seed Dormancy and Germination" is appropriate, but it could be made more precise. A suggested alternative:  **"Epigenetic Regulation of Seed Dormancy and Germination: Mechanisms and Agricultural Applications."** |  |
| **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 abstract effectively summarizes the manuscript's key points but could be improved by emphasizing specific findings and practical implications. Consider adding:   * A brief mention of experimental approaches or key studies referenced. * A stronger concluding sentence on the impact of these findings on crop management and sustainability. |  |
| **Is the manuscript scientifically, correct? Please write here.** | The manuscript appears to be scientifically sound, with well-supported claims and references.  However, a thorough check should be performed to ensure that all mechanistic explanations align with current literature. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | The references are sufficient and recent, covering key studies in the field. If necessary, additional references could include more recent reviews on epigenetic applications in crop  sciences. |  |
| **Is the language/English quality of the article suitable for scholarly communications?** | The language is clear and appropriate for scholarly communication, but minor grammatical  refinements could improve readability. Consider professional proofreading for further refinement. |  |
| **Optional/General** comments |  |  |

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| |  |  |  | | --- | --- | --- | | **PART 2:** | | | |  | **Reviewer’s comment** | **Author’s comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. 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)* |  |   **Reviewer Details:** | |
| Name: | **Edenilson Brandl** |
| Department, University & Country | **Brazil** |