

Review Form 1.7

Journal Name:	International Journal of Plant & Soil Science
Manuscript Number:	Ms_IJPSS_103911
Title of the Manuscript:	Stability of international provenances of Casuarina equisetifolia grown in India
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journalijpss.com/index.php/IJPSS/editorial-policy>)

Review Form 1.7

PART 1: Review Comments

	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)
<p>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write a few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p>	<p>1. Establishing stability of international provenances of <i>Casuarina equisetifolia</i> (commonly known as <i>Australian Pine</i> or <i>Filao</i>) grown in India is crucial for the following reasons. <i>Casuarina equisetifolia</i> is a widely distributed species with various ecotypes across its native range. Introducing international provenances from different regions can enhance the genetic diversity of the species in India. This is essential for maintaining healthy populations and resilience to environmental changes, diseases, and pests. Additionally, <i>Casuarina equisetifolia</i> plantations can provide various ecosystem services, such as stabilizing sand dunes and preventing coastal erosion. Using international provenances may enhance the effectiveness of such plantations in fulfilling these ecological functions. In this work, the author reported the experimental results on selected international provenances of <i>C. equisetifolia</i> conducted at the ICFRE-Institute of Forest Genetics and Tree Breeding, Coimbatore, India. In the present study, stability parameters were estimated using the model proposed by Eberhart and Russel (1966). The obtained results are summarized in section 4.0 "Conclusions".</p> <p>2. In my opinion, a very attractive title could be: "Assessing the Performance and Adaptability of International <i>Casuarina equisetifolia</i> Varieties Grown in India".</p> <p>3. In my opinion, the abstract is not written attractively. The abstract is too long and goes into details that should be mentioned and discussed in the body of the article. A good abstract should be structured in such a way that it concisely answers the following three questions: "What problems led to this work?", "What is the environment that makes this work interesting or important?", and "What were the objectives of this work? Authors are encouraged to rewrite the abstract in this sense.</p> <p>4. Yes.</p> <p>5. As far as I'm allowed to check, if. The authors first described the methodology used and then presented the results of the <i>pooled ANOVA</i> and the mean performance and stability parameters: <i>stability parameters for tree height, stability parameters for diameter at breast height, and stability parameters for volume index.</i></p> <p>6. The list of references is not exhaustive and should be completed. I suggest citing the following works. [1] Abe, T., Yasui, T. and Makino, S., <i>Vegetation status on Nishi-jima Island(Ogasawara) before the eradication of alien herbivore mammals: rapid expansion of an invasive alien tree, Casuarina equisetifolia (Casuarinaceae).</i>, Journal of Forest Research, 16, 484, (2011). [2] Hardman, C.J., Williams, S., Manco, B.N.and Hamilton, M.A., <i>Predicting the potential threat of Casuarina equisetifoliato three endemic plant species on the Turks and Caicos Islands</i>, Oryx., 46, 204 (2012). [3] Liu, X., Lu, Y., Xue, Y. and Zhang, X., <i>Testing the importance of native plants in facilitation the restoration of coastal plant communities dominated by exotics</i>, For. Ecol. Manage., 322, 19 (2014). [4] Kumar, V., <i>Advanced Forest plantation nursery management</i>, Scientific Publication, New Delhi (2017). [5] Jain, J.K. and Mohan, N.M., <i>The Andhra Pradesh Paper Mills and sustainable pulp wood production from Casuarina equisetifolia</i>, 193 (2001), In <i>Casuarina Improvement and Utilization</i>, Gurusurthi, K., Nicodemus, A., and Siddappa (eds.) Institute of Forest Genetics and Tree Breeding, Coimbatore, India.</p> <p>7. Studying the stability of international provenances of <i>Casuarina equisetifolia</i> grown in India can</p>	

Review Form 1.7

<p>7. Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</p>	<p>be a complex and challenging process, and several issues need to be considered. For instance, i) India has diverse ecological regions, each with unique climatic conditions, soil types, and rainfall patterns. The stability of international provenances may vary significantly across these different regions, making it essential to conduct extensive trials in multiple locations to account for environmental variability. ii) Introducing international provenances carries the risk of potential invasiveness, as certain varieties may not have natural predators or competitors in the new environment. Invasive species can have detrimental effects on native ecosystems and biodiversity. iii) Provenances from other countries might carry pathogens or pests that are not present in India. Evaluating and mitigating potential risks related to diseases and pests is essential to prevent the spread of new threats to local ecosystems. iv) As climate change continues to impact ecosystems, predicting the long-term stability of different provenances becomes more challenging. The performance of provenance in a specific region may change over time due to shifting climate patterns. For completeness, the author is invited to discuss (albeit quite briefly) the above issue, mentioning the limitations of his/her approach.</p>	
<p>Minor REVISION comments 1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>1. English should be double-checked; several typos were found.</p>	
<p>Optional/General comments</p>	<p>The work is interesting and current. In my opinion, it is suitable for publication after the author has taken into account the suggestions expressed above.</p>	

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)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

<p>Name:</p>	<p>Giorgio Sonnino</p>
<p>Department, University & Country</p>	<p>Universite' Libre de Bruxelles, Belgium</p>