# Article information:

Effects of biochar from slow pyrolysis of papermill waste on agronomic performance and soil fertility | SpringerLink
<https://link.springer.com/article/10.1007/s11104-009-0050-x>

# Article summary:

1. Biochar derived from slow pyrolysis of papermill waste was assessed in a glasshouse study.

2. Biochars increased soil fertility and agronomic performance, such as pH, CEC, exchangeable Ca and K, and total C.

3. Biochar amendment significantly increased N uptake in wheat grown in fertiliser amended ferrosol and biomass production in soybean and radish in the ferrosol with fertiliser.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy as it provides evidence for its claims through a glasshouse study that assesses the amendment of two agricultural soils with two biochars derived from the slow pyrolysis of papermill waste. The article also provides detailed characterisation of both biochars which reveals their high surface area, liming values, carbon content, molar H/C ratios, etc., which further supports its claims. Furthermore, the article also mentions potential environmental risks associated with papermill wastes such as sulphates, fine pulp solids, bleaching chemicals, mercaptans, sulphides, carbonates and hydroxides which can be eliminated through thermal processing into biochar.

However, there are some points to consider when assessing the trustworthiness of this article. Firstly, it does not provide any information on possible risks associated with biochar amendment such as potential toxicity or leaching of contaminants into groundwater or surface water bodies. Secondly, it does not explore any counterarguments to its claims or present both sides equally which could have provided a more balanced view on the topic. Lastly, there is no mention of any promotional content or partiality which could have biased the results presented in the article.

# Topics for further research:

* Environmental risks associated with papermill waste
* Potential toxicity of biochar amendment
* Leaching of contaminants from biochar
* Counterarguments to biochar amendment
* Balanced view on biochar amendment
* Promotional content and partiality in biochar amendment research

# Report location:

<https://www.fullpicture.app/item/73297f59a0da856943fb38b474aa02e8>