

## Review of: "Excessive Aluminum in Soil: Review Paper"

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Potential competing interests: No potential competing interests to declare.

- 1. This review comprehensively addresses the multifaceted impacts of excessive aluminum in soil, from its effects on plant growth to environmental and human health concerns. It provides valuable insights into the complex interactions and offers promising strategies for mitigation."
- 2. The discussion on the environmental impacts of high soil aluminum levels is particularly enlightening, shedding light on the cascading effects on soil fertility and potential groundwater contamination. It underscores the urgency for proactive measures in soil management."
- 3. While the assessment methods section outlines various techniques for measuring soil aluminum concentration, further elaboration on the limitations and challenges associated with each method would enhance the depth of understanding for readers."
- 4. The inclusion of recent advances in remediation strategies, such as phytoremediation and nanotechnology, adds relevance to the paper and underscores the importance of integrating innovative approaches for sustainable soil management."
- 5. "The article effectively highlights the conflicting findings regarding the effects of aluminum on plant growth, emphasizing the need for nuanced consideration of factors such as soil pH and aluminum species. This nuanced approach is crucial for devising targeted interventions."
- 6. "The section on health risks associated with aluminum exposure provides a sobering reminder of the broader implications beyond agricultural ecosystems, touching upon potential links to neurological disorders. It underscores the imperative for interdisciplinary research and policy action."
- 7. "The paper could benefit from further exploration of socio-economic implications, particularly in regions heavily reliant on agriculture where aluminum contamination may disproportionately affect livelihoods and food security. Integrating such perspectives would enrich the discussion on sustainable solutions."

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