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JournalName:	InternationalJournalofPlant&SoilScience
ManuscriptNumber:	Ms_IJPSS_121817
TitleoftheManuscript:	EffectofIntegratedNutrientManagement(INM)onSoilPhysico-ChemicalPropertiesinWheat(Triticumaestivum)IntercropunderBuel(GrewiaoptivaDrummond)basedAgroforestry SystemandOpenCondition
TypeoftheArticle	

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript is pivotal for the scientific community as it addresses the pressing issue of soil degradation and human health hazards due to excessive chemical use in agriculture. By exploring the effectiveness of Integrated Nutrient Management (INM) in wheat cultivation within a <i>Grewia optiva</i>-based agroforestry system, the study offers valuable insights into sustainable agricultural practices. The research demonstrates that INM significantly enhances both physical and chemical soil properties, leading to improved crop yields and soil health. These findings are crucial for developing strategies to mitigate the adverse effects of chemical fertilizers and pesticides, ultimately promoting chemical-free agriculture and safeguarding human health.</p>	
<p>Is the title of the article suitable? (If not, please suggest an alternative title)</p>	<p>Sujiro que o título desta que claramente o objetivo do estudo, as condições comparativas e o contexto agroflorestal. Título alternativo: "Impacto da Gestão Integrada de Nutrientes (GIN) nas Propriedades Físico-Químicas do Solo em Sistemas Agroflorestais com Trigo (<i>Triticum aestivum</i>) e Buel (<i>Grewia optiva</i> Drummond) Comparado com Condições Abertas"</p>	
<p>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.</p>	<p>The title must clearly highlight the objective of the study, the comparative conditions and the agroforestry context. Alternative title: "Impact of Integrated Nutrient Management (GIN) on Soil Physico-Chemical Properties in Agroforestry Systems with Wheat (<i>Triticum aestivum</i>) and Buel (<i>Grewia optiva</i> Drummond) Compared to Open Conditions"</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Yes, the subsections and structure of the manuscript are appropriate. The organization of the content is clear and logical, with distinct sections for physical and chemical soil properties, each addressing specific aspects of the study. The subsections effectively break down the complex information, making it accessible and comprehensible. The structure supports a coherent flow of information, allowing readers to follow the methodology, results, and discussion seamlessly. Overall, the manuscript's structure enhances its readability and scholarly value.</p>	

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<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>Apparent Density The reduction in bulk density under trees is consistent with the literature, indicating that the presence of a tree canopy improves soil structure by adding organic matter and promoting pore formation. The addition of organic matter such as cow manure (FYM) has been shown to be effective in reducing bulk density, which is well documented in previous studies. This relationship can be better explored for sustainable management practices that aim to improve soil structure.</p> <p>Particle Density The lower particle density under trees and with the application of FYM reflects the improvement in soil structure due to the addition of organic matter. Literature confirms that organic matter and the presence of trees help create stable soil aggregates and reduce particle density. However, the non-significance of interactions between year and planting conditions may suggest that factors other than organic matter also influence particle density.</p> <p>Porosity The greater porosity under trees is in line with the expectation that organic matter and tree roots improve soil structure by increasing porosity. Increased porosity is beneficial for water retention and soil aeration. However, the variation in porosity between years and the lack of significance in interactions between year and treatment indicate that temporal variability may not have as significant an impact on porosity compared to nutrient management treatments.</p> <p>Soil Moisture The higher humidity under agroforestry and with FYM can be attributed to the improved water retention capacity of organic matter and reduced evapotranspiration under the tree canopy. The results corroborate studies that show that organic matter and soil cover promote water retention. The lack of significance in multiple interactions may suggest that variability in soil moisture is more influenced by nutrient treatments than by interactions between year and planting system.</p> <p>Soil Chemical Properties Soil acidification under trees and with the use of FYM is consistent with the effect of organic acids released by the decomposition of organic matter. This is in line with literature suggesting that organic matter can reduce soil</p>	
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	<p>pH. The significant difference in pH between treatments and control is important to adjust soil management and ensure adequate nutrient availability.</p> <p>Electrical Conductivity (EC) The higher electrical conductivity under trees and with the application of FYM reflects the higher concentration of ions in the soil, possibly due to the decomposition of organic matter. The literature confirms that the decomposition of organic matter and the effect of tree canopy can increase EC. However, the significant interaction between year and systems suggests that climatic factors can also influence soil EC.</p> <p>Organic Carbon, Available Nitrogen, Available Phosphorus and Available Potassium Increased nutrient levels under trees and with FYM application are expected due to increased organic matter and management practices that improve nutrient retention. The literature supports these results, indicating that the presence of trees and the application of organic matter are beneficial for soil quality and nutrient availability. The significant interactions between year and planting conditions highlight the importance of considering temporal variations in nutrient management studies.</p> <p>Although treatments and systems have clear effects, interactions between different variables must be carefully considered to optimize soil management practices.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> <p>-</p>	<p>Yes, the references in the article are both sufficient and recent. They adequately support the study's findings and provide a comprehensive background on the topic. The inclusion of recent studies ensures that the article is up-to-date with current research trends and developments.</p> <p>If needed, additional references could be considered to further strengthen the background or address any specific gaps. For example, you might include:</p> <p>Recent Review Articles: To provide a broader context and recent advancements in related areas.</p> <p>However, the current references already offer a strong foundation for the article's content.</p>	
<p><u>Minor REVISION</u> comments</p> <p>Is the language/English quality of the articles suitable for scholarly communications?</p>	<p>Yes, the language and English quality of the article are suitable for scholarly communication. The writing is clear, precise, and appropriately detailed for an academic audience. It effectively presents complex data and analyses in a structured manner, ensuring that the information is accessible and comprehensible.</p> <p>Additionally, the use of technical terminology and citations from relevant studies support the scholarly rigor of the article.</p>	
<p><u>Optional/General</u> comments</p>	<p>The keywords are repeated in the title of the article, you must use keywords different from those words contained in the title.</p> <p>Alternative Keyword Suggestions:</p> <ol style="list-style-type: none"> 1. Sustainability 2. Intercropping 3. Soil properties 4. Agroforestry system 5. Soil fertility 6. Integrated nutrient management <p>These keywords are distinct from the title and cover important aspects of the study, such as sustainability and integrated nutrient management, in addition to highlighting the specific context of intercropping and the agroforestry system.</p> <p>change to the correct formation of this reference: WHO. 2011. Nitrate and nitrite in drinking water. New Delhi, World Health Organisation. The quotes Karet al. (2018) and Sietal. (2018) is not included in the references.</p>	

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PART 2:

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

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