

### Review Form 3

Journal Name:	<a href="#">International Journal of Plant &amp; Soil Science</a>
Manuscript Number:	Ms_IJPSS_129566
Title of the Manuscript:	Status of different forms of Nitrogen in soils of Navsari district of South Gujarat
Type of the Article	Research Article

#### **General guidelines for the 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 guidelines for the Peer Review process, reviewers are requested to visit this link:

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#### **PART 1: Comments**

	<b>Reviewer's comment</b>	<b>Author's Feedback</b> <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>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.</b>	<b>This research is important to the scientific community as it provides valuable insights into soil nitrogen dynamics, advancing our understanding of nitrogen fractions, their distribution, and correlations with other soil properties. The study informs strategies to optimize nitrogen use, enhance crop productivity, and reduce environmental pollution, while highlighting the importance of vegetation restoration in improving soil nitrogen availability. With regional relevance to Navsari district, Gujarat, the research demonstrates effective methodological approaches and intersects with agronomy, ecology, environmental science, and soil science, making it relevant to a broad range of scientific disciplines.</b>	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	<b>Authors may consider the rephrased title  "Soil Nitrogen Status in Navsari District of South Gujarat: Forms and Distribution"</b>	

**Review Form 3**

<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>Yes. Below is the new version.          Nitrogen is one of the main limiting factors of crop productivity and many studies have sought possibilities to reduce the need for N application and extend the period of availability to plants. The present work is to study the nitrogen status, forms and distributions under different cropping and management system at NAU, Navsari (Gujarat) during the year 2022-2023. Ten soil samples were collected randomly from 0-15 cm and 15-30 cm depth using different cropping and management systems with GIS base grid sampling method from each taluka of Navsari district. Soil samples were subjected to preliminary analysis for pH, EC, SOC and then analysis of different N-fractions was carried out. Results from analysis of difference N-fractions, N, NO<sub>3</sub>, NH<sub>4</sub> and total N in Navsari district revealed a range of 72.80 to 375.20 mg kg<sup>-1</sup>, 5.60 to 92.40 mg kg<sup>-1</sup>, 30.80 to 114.80 mg kg<sup>-1</sup> and 140.00 to 1036.00 mg kg<sup>-1</sup>, respectively for surface soils, while for sub-surface soils were 61.60 to 364.00 mg kg<sup>-1</sup>, 8.40 to 72.80 mg kg<sup>-1</sup>, 25.20 to 100.80 mg kg<sup>-1</sup> and 140.00 to 924.00 mg kg<sup>-1</sup>, respectively. At surface layer, total N was correlated significantly and positively with SOC, CEC and it was negatively correlated with pH and EC. However, total N showed similar correlation with SOC and EC at sub-surface layer. NH<sub>4</sub> and NO<sub>3</sub> were positively and significantly correlated with each other at the same depth. The result also revealed that the N fractions were significantly decreased with increasing depth of soil. These findings suggest that vegetation restoration improved the soil N availability and provides valuable insights into soil nitrogen dynamics, advancing our understanding of nitrogen fractions, their distribution, and correlations with other soil properties.</p>	
<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>Yes.          It used appropriate experimental design and methodology</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>More than 90 % of the references are not current.          Authors should consider updating their references, at least those published not more than 10 years old</p>	
<p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>Need to improve in grammar, spellings, punctuations and language</p>	
<p><b>Optional/General</b> comments</p>	<p>Authors should consider good keywords such as GIS, N-fractions, Soil, P<sup>H</sup>, N-distributions and Crop productivity.           Generally the subsections and structure of the manuscript were not appropriate. Some sections were mixed-up. It doesn't follow the most commonly used manuscript format 'IMRAD' in proper order. Though authors used appropriate experimental design and methodology. However, data presentation and interpretations in the discussions were mixed-up with methodology.</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>	

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